



Thor

INDEPENDENT  
PNEUMATIC TOOL  
COMPANY

CHICAGO

NEW YORK













# INDEPENDENT PNEUMATIC TOOL COMPANY

MANUFACTURERS OF  
PITTSBURGH, PA.



## PNEUMATIC TOOLS

PISTON AIR DRILLS, REVERSIBLE AND NON-REVERSIBLE,  
PNEUMATIC REAMING, TAPPING AND FLUE ROLLING MACHINES,  
PNEUMATIC WOOD BORING MACHINES,  
PNEUMATIC RIVETING, CHIPPING, CALKING AND BEADING HAMMERS,  
PNEUMATIC HOISTS, MOTORS, GRINDING MACHINES,  
PNEUMATIC SAWS, FLUE EXPANDERS AND  
PNEUMATIC APPLIANCES OF EVERY DESCRIPTION.

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GENERAL OFFICES  
13th Floor, First National Bank Bldg.  
CHICAGO

EASTERN OFFICES  
170 Broadway,  
NEW YORK

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BRANCH OFFICES

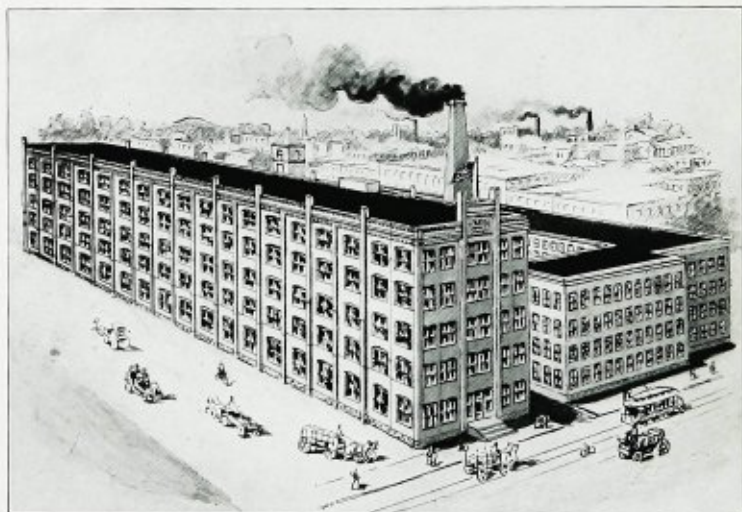
PITTSBURGH, PENN., 1210 FARMERS BANK BLDG.  
SAN FRANCISCO, CALIF., 11 FRONT ST.

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LONDON      PARIS      BERLIN      TOKIO

(Works: Aurora, Illinois)

Cable Address, "*Thor*" Chicago      Lieber's Standard Code used



OUR WORKS AT AURORA, ILLINOIS

The largest and best equipped Pneumatic Tool Plant  
in the world



# Introduction



IN PRESENTING Catalog No. 8 (which supersedes all former issues), we take pleasure in stating that the *Thor* Pneumatic Tools are continuing their great success and proving daily their superiority in practical service over all air tools of other makes.

This excellent condition has been attained by our furnishing tools of the most modern design, made from the most carefully selected materials, machined with accuracy by the latest up-to-date machines, built by the highest class of mechanics, and thoroughly tested and proven for practical use.

Our manufacturing plant at Aurora, Illinois, the largest and most complete of its kind, is being greatly enlarged to meet the unprecedented demand for our products.

Where, a few years ago, the manufacturer used a few drills or hammers as a good advertisement for his business, today, he understands and appreciates pneumatic tools and appliances as a necessity for economy.

Economy demands the greatest efficiency, durability and superiority.

Economy demands *Thor* Pneumatic Tools.

Respectfully,

INDEPENDENT PNEUMATIC TOOL CO.

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# CAPACITIES PISTON AIR DRILLS

## NON-REVERSIBLE

SIZE	Weight Lbs.	Cubic Feet Free Air per Min.	Length Over All Inches	Distance from Side to Center of Spindle Inches	Diameter and Stroke of Cylinder Inches	Length of Feed Inches	Morse Taper Socket	Drilling Inches	Ream'g Inches	Tapping Inches	Revolutions per Minute	Size Hose Req'd Inches
No.												
0	55	40	16	4 $\frac{1}{4}$	2 $\frac{3}{8}$ X 2	4 $\frac{1}{4}$	4	3	2 $\frac{1}{2}$	2 $\frac{1}{2}$	200	$\frac{3}{4}$
1	38	35	14 $\frac{1}{2}$	3 $\frac{9}{16}$	2 X 2	4 $\frac{1}{4}$	4	2 $\frac{1}{2}$	2	2	280	$\frac{3}{4}$
2	25	24	12 $\frac{3}{4}$	2 $\frac{3}{4}$	1 $\frac{1}{2}$ X 1 $\frac{1}{2}$	4 $\frac{3}{8}$	3	1 $\frac{1}{2}$	1	1	420	$\frac{3}{4}$
4	16	18	10 $\frac{1}{2}$	2 $\frac{1}{8}$	1 $\frac{1}{2}$ X 1 $\frac{1}{4}$	4	2	$\frac{3}{8}$			500	$\frac{3}{4}$
3 $\frac{1}{2}$ Two 38revs	10	15	13 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{4}$ X 1	2 $\frac{1}{2}$	1	$\frac{3}{8}$			750-1500	$\frac{3}{4}$
10	8	14	12 $\frac{3}{8}$	1 $\frac{1}{2}$	1 $\frac{1}{4}$ X 1	2 $\frac{1}{2}$		$\frac{1}{8}$			1500	$\frac{3}{4}$

## REVERSIBLE

SIZE	Weight Lbs.	Cubic Feet Free Air per Min.	Length Over All Inches	Distance from Side to Center of Spindle Inches	Diameter and Stroke of Cylinder Inches	Length of Feed Inches	Morse Taper Socket	Drilling Inches	Ream'g Inches	Tapping Inches	Flue Rolling Inches	Revolu- tions per Minute	Size Hose Req'd Inches
No.													
00	55	40	16	4 $\frac{1}{4}$	2 $\frac{3}{8}$ X 2	4 $\frac{1}{4}$	4	3	2 $\frac{1}{2}$	2 $\frac{1}{2}$	4	160	$\frac{3}{4}$
21	38	35	14 $\frac{1}{2}$	3 $\frac{9}{16}$	2 X 2	4 $\frac{1}{4}$	4	2 $\frac{1}{2}$	2	2	3	190	$\frac{3}{4}$
22	25	24	12 $\frac{3}{4}$	2 $\frac{3}{4}$	1 $\frac{1}{2}$ X 1 $\frac{1}{2}$	4 $\frac{3}{8}$	3	1 $\frac{1}{4}$	1	1	2 $\frac{1}{2}$	300	$\frac{3}{4}$

Screw Feed or Grip Handle will be furnished with Reversible Drills as specified in order. Capacities—Continued on following page.

# CAPACITIES *Thor* PISTON AIR DRILLS — CONTINUED

## REVERSIBLE WOOD-BORING MACHINES

SIZE	Weight Lbs.	Cubic Feet Free Air per Min.	Length Over All Inches	Distance from Side to Center of Spindle Inches	Diameter and Stroke of Cylinder Inches	Revolu- tions per Minute	Size Hose Required Inches	ADAPTED TO
No. 6 Two Speeds	8	14	13 $\frac{1}{4}$	1 $\frac{1}{4}$	1 $\frac{1}{8}$ x 1	750-1500	$\frac{1}{2}$	Boring into Wood up to 1 in. diam.
No. 5	15	20	12 $\frac{3}{8}$	2 $\frac{7}{8}$	1 $\frac{1}{2}$ x 1 $\frac{1}{4}$	800	$\frac{3}{4}$	Boring into Wood up to 2 $\frac{1}{2}$ in. diam.
No. 14	24	25	14 $\frac{3}{16}$	3 $\frac{5}{16}$	1 $\frac{3}{8}$ x 1 $\frac{3}{8}$	600	$\frac{3}{4}$	Boring into Wood up to 4 in. diam.

## SPECIAL AIR DRILLS

SIZE	Weight Lbs.	Cubic Feet Free Air per Min.	Length Over All Inches	Distance from Side to Center of Spindle Inches	Diameter and Stroke of Cylinder Inches	Morse Taper Socket	Revolu- tions per Minute	Size Hose Required Inches	ADAPTED TO
No. 24 Non-Reversible Compound	50	45	16 $\frac{1}{2}$	4	2 x 2	4	125	$\frac{3}{4}$	Extra Heavy Drilling, Reaming, Tapping, Boring Cylinders, etc.
No. 25 Reversible Compound	50	45	17 $\frac{1}{4}$	4	2 x 2	4	115	$\frac{3}{4}$	Extra Heavy Drilling, Reaming and Tapping, Rolling Flues up to 4-inch diam., boring cylinders, etc.
No. 7 Non-Reversible Grinder	16	20	18	1 $\frac{3}{4}$	1 $\frac{1}{2}$ x 1 $\frac{1}{4}$	-----	3000	$\frac{3}{4}$	Grinding Castings, Polishing and Buffing.
No. 8 Close-Quarter Drill Non-Reversible	26	25	7 $\frac{1}{2}$	1 $\frac{5}{8}$	1 $\frac{1}{8}$ x 1 $\frac{1}{8}$	3	175	$\frac{3}{4}$	Drilling up to 2-in. diam.; reaming up to 1 $\frac{1}{4}$ in. diam. in close quarters.



# CAPACITIES *They* PNEUMATIC HAMMERS CHIPPING AND CALKING

SIZE	Diam. of Piston Inches	Stroke Inches	Weight Lbs.	Length Over All Inches	Cubic Feet Free Air per Min.	Blows per Minute	Size Hose Required	ADAPTED TO
No. 1.....	1 $\frac{1}{16}$	1	8	10 $\frac{1}{2}$	12	3000	$\frac{1}{2}$ in.	Very Light Chipping and Scaling
No. 2.....	1 $\frac{1}{16}$	2	9	12 $\frac{1}{2}$	13	2000	$\frac{1}{2}$ in.	Light Chipping, Calking and Beading Flues
No. 3.....	1 $\frac{1}{16}$	3	10	14 $\frac{1}{2}$	14	1400	$\frac{1}{2}$ in.	General Chipping and Calking
No. 4.....	1 $\frac{1}{16}$	4	11	15 $\frac{1}{2}$	15	1000	$\frac{1}{2}$ in.	Heavy Chipping and Calking
No. 5.....	1 $\frac{1}{16}$	5	12	17 $\frac{1}{2}$	18	800	$\frac{1}{2}$ in.	Extra Heavy Chipping

In ordering Chipping and Calking Hammers specify whether round or hexagon nozzles are desired.

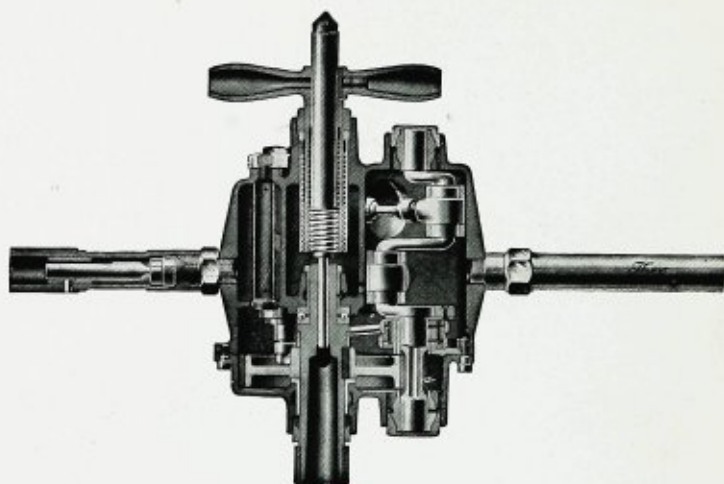
## RIVETING

SIZE	Diam. of Piston Inches	Stroke Inches	Weight Lbs.	Length Over All Inches	Cubic Feet Free Air per Min.	Blows per Minute	Size Hose Required	ADAPTED TO
No. 40.....	1 $\frac{1}{16}$	4	13	16 $\frac{1}{2}$	18	1000	$\frac{1}{2}$ in.	Driving Rivets up to $\frac{1}{2}$ inch Diameter
No. 50.....	1 $\frac{1}{16}$	5	15	18 $\frac{1}{2}$	18	800	$\frac{3}{4}$ in.	Driving Rivets up to $\frac{3}{4}$ inch Diameter
No. 60.....	1 $\frac{1}{16}$	6	17	16 $\frac{1}{2}$	20	900	$\frac{3}{4}$ in.	Driving Rivets up to $\frac{3}{4}$ inch Diameter
No. 80.....	1 $\frac{1}{16}$	8	19	19	22	770	$\frac{3}{4}$ in.	Driving Rivets up to $\frac{3}{4}$ inch Diameter
No. 90.....	1 $\frac{1}{16}$	9	21	20 $\frac{1}{2}$	22	700	$\frac{3}{4}$ in.	Driving Rivets up to 1 $\frac{1}{4}$ inch Diameter

When ordering Riveting Hammers, specify the size and style (Button or Cone Heads) of Rivet sets required.

## *Thor* Piston Air Drills and Reversible Wood Boring Machines

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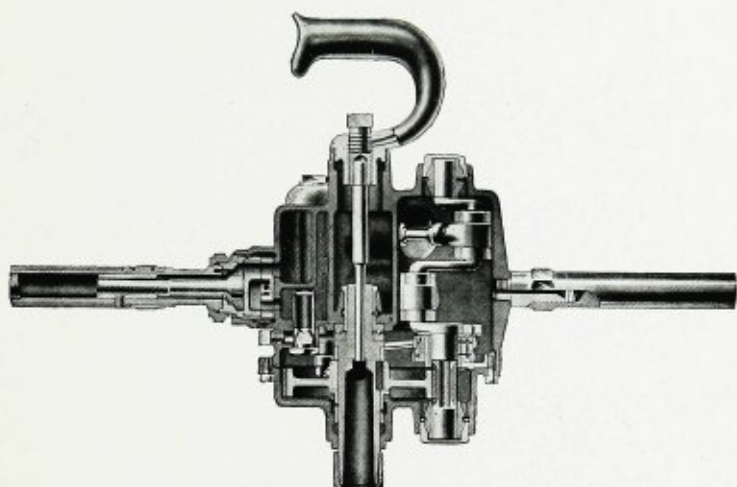
Sectional View *Thor* Non-Reversible Drill

*Thor* Piston Air Drills and Reversible Wood Boring Machines are of the four-cylinder reciprocating piston type, the cylinders being arranged in pairs for a two-way opposed crank shaft. They have the Corliss valve motion, allowing the live air to be magazined and controlled up to within three-eighths of an inch or less from the cylinder, which, when released quickly, acts on the piston instantaneously. This construction allows no air to pass through except what is absolutely needed and used in driving the motor, and effects a very great saving in the consumption of air.

All joints in the case have been dispensed with excepting one between gear case and cylinder, thereby simplifying construction, assisting in keeping the working parts in true line and preventing leakage. They are easily accessible and require very little attention and repairs. All drills are fitted with *Morse Taper Standard Sockets*. The *Telescopic Feed* with which they are equipped is one of their many good features, as it gives larger range than any other construction and is absolutely safe when the longest limit is reached.

## *Thor* Piston Air Drills and Reversible Wood Boring Machines

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Sectional View *Thor* Reversible Drill

The Reversible Action of the Drills is obtained by moving sliding collar on air handle away from sleeve, and turning the sleeve full over to the right; turning to the left starts the drill forward. The sliding collar is only a safety appliance, and by moving same toward sleeve drill cannot be reversed, but when moved out of the way the tool is reversed instantly in either direction.

Reversible Drills will be furnished with Screw Feed or Grip Handle, *as requested by customer.*

In the Nos. 24 and 25 drills, compound gearing is employed, insuring great power with slow speed without the use of the cumbersome and unsatisfactory reducing motion used with all other makes of air drills to accomplish these results. They are designed for extra heavy drilling, flue rolling, tapping, reaming, setting valves, boring cylinders and all classes of heavy work.

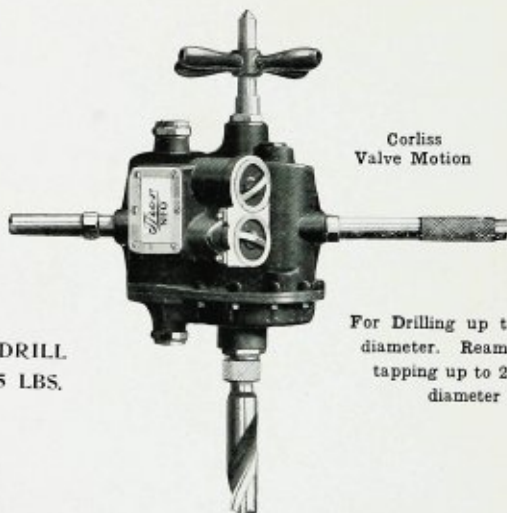
But one set of ball bearings is used, placed between the gear case and spindles.

All drills are fitted with removable plates over crank chambers, rendering cranks, toggles, rods, etc., easy of access.

*Thor*

**Piston Air Drills**  
**NON-REVERSIBLE**  
**STANDARD OF THE WORLD**

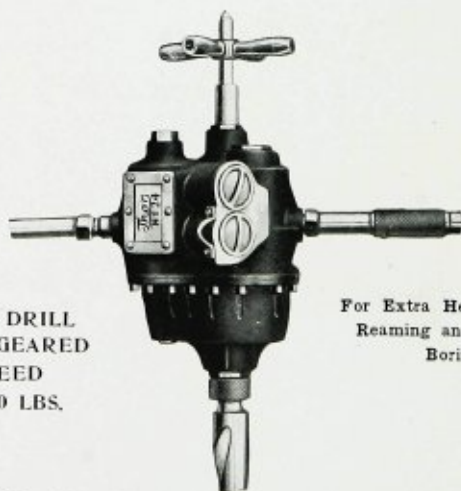
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Corliss  
Valve Motion

*Thor* NO. 0 DRILL  
WEIGHT 55 LBS.

For Drilling up to 3 inch  
diameter. Reaming and  
tapping up to 2½ inch  
diameter



*Thor* NO. 24 DRILL  
COMPOUND GEARED  
SLOW SPEED  
WEIGHT 50 LBS.

For Extra Heavy Drilling,  
Reaming and Cylinder  
Boring.

**ACME OF AIR DRILL CONSTRUCTION**





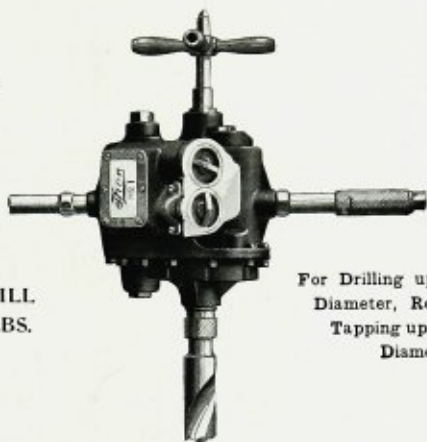
## Piston Air Drills—CONTINUED NON-REVERSIBLE

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SENT ON TRIAL



NO. 1 DRILL  
WEIGHT 38 LBS.

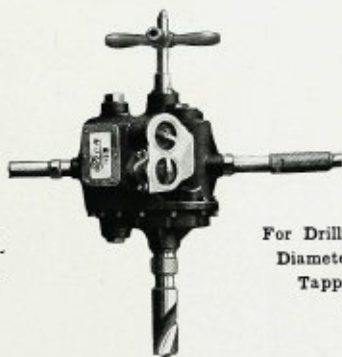


For Drilling up to 2½ Inch  
Diameter, Reaming and  
Tapping up to 2 Inch  
Diameter

### TELESCOPIC FEED



NO. 2 DRILL  
WEIGHT 25 LBS.



For Drilling up to 1½ Inch  
Diameter, Reaming and  
Tapping up to 1 Inch  
Diameter

**Guaranteed to do 30 Per Cent More Work than any Other Air  
Machines of Equal Weight on the Market**

# *Thor* Piston Air Drills—CONTINUED NON-REVERSIBLE

---



*Thor* NO. 4 DRILL  
WEIGHT 16 LBS.

For Drilling up to  $\frac{1}{2}$  Inch Diameter  
and Light Reaming to  
 $\frac{3}{4}$  Inch Diameter

USE *Thor* TOOLS TO SECURE BEST RESULTS



*Thor*  
NO. 3 BREAST AND  
SCREW FEED DRILL  
2 SPEEDS  
WEIGHT 10 LBS.

For Drilling up to  $\frac{9}{16}$  Inch  
in Metal



*Thor*  
NO. 10 BREAST  
AND  
SCREW FEED  
DRILL  
1 SPEED  
WEIGHT 8 LBS.

Capacity  $\frac{1}{2}$  Inch  
Drilling

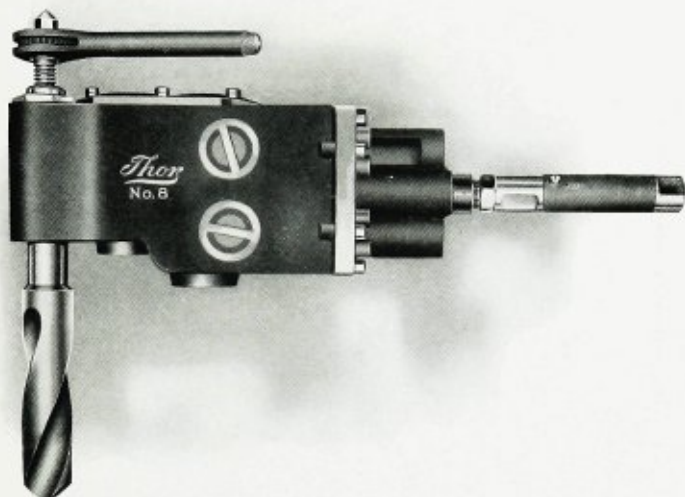
*Thor* AIR DRILLS ALWAYS GIVE SATISFACTION



## Close-Quarter Piston Air Drill

No. 8

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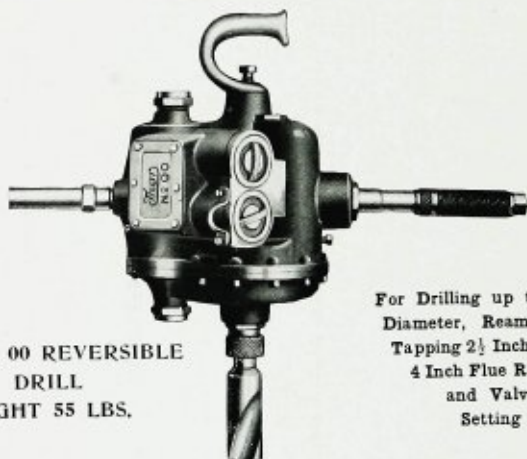


THE *Thor* No. 8 CLOSE QUARTER DRILL is designed for use in *corners* and *close quarters*, where the ordinary drill cannot be used. This is a compact and powerful machine, capable of drilling up to 2 inches diameter and reaming up to 1½ inches diameter. Its dimensions are 7½ inches over all, 3½ inches wide by 15½ inches long. The distance from outside of case to center of spindle is only 1⅝ inches, the advantage of which in close quarter work is apparent. It weighs 26 lbs., has no vibration and is easily handled.

SENT ON APPROVAL AT OUR EXPENSE

*Thor* Reversible Piston Air Drills  
Equipped with Telescopic Feed or Grip Handles

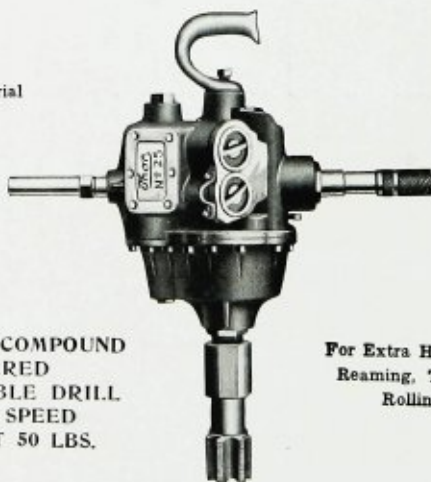
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*Thor* NO. 00 REVERSIBLE  
DRILL  
WEIGHT 55 LBS.

For Drilling up to 3 Inch  
Diameter, Reaming and  
Tapping 2½ Inch Diam.,  
4 Inch Flue Rolling  
and Valve  
Setting

Sent on Trial



*Thor* NO. 25 COMPOUND  
GEARED  
REVERSIBLE DRILL  
SLOW SPEED  
WEIGHT 50 LBS.

For Extra Heavy Drilling,  
Reaming, Tapping and  
Rolling Flues



# *Thor* Reversible Piston Air Drills

Equipped with Telescopic Feed or Grip Handles

---

CORLISS VALVE  
MOTION

*Thor* NO. 21 RE-  
VERSIBLE DRILL  
WEIGHT 38 LBS.



For Drilling up to  $2\frac{1}{2}$  Inch  
Diameter, Reaming and  
Tapping up to  
2 Inch  
and Rolling Flues up to  
3 inch Diameter

Sent on Approval

*Thor* NO. 22 REVERS-  
IBLE DRILL  
WEIGHT 25 LBS.



For Drilling up to  $1\frac{1}{2}$  Inch,  
 $2\frac{1}{2}$  Inch Flue Rolling,  
Reaming and Tap-  
ping up to 1  
Inch

*Thor* DRILLS ARE SUPREME—MECHANICALLY  
AND ECONOMICALLY

*Thor*

## Reversible Wood Boring Machines

Fitted with Chucks to receive one-half inch  
Round Shank Bits

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NO. 6

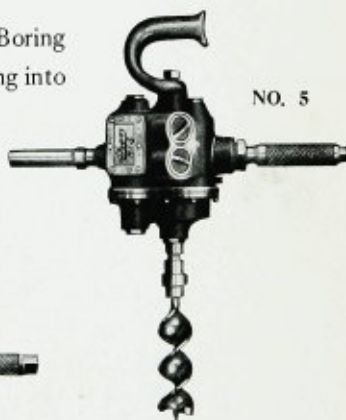
The only Re-  
versible Bor-  
ing Machine of  
its Size Made.

*Thor*

No. 6 Reversible Wood Boring Machine. Weight, 8 lbs. Will bore into wood up to 1 inch diameter. Has two speeds—fast (1500 rev. per min.) for light work, and slow (750 rev. per min.) for medium work up to its capacity.

*Thor*

No. 5 Reversible Wood Boring Machine. Weight, 15 lbs. For boring into wood up to 2½ inches in diameter.



NO. 5



NO. 14

*Thor*

No. 14. Reversible Wood Boring Machine. Weight 25 lbs. For boring into wood up to 4 inches in diameter.

INVALUABLE FOR CAR, DOCK AND SHIPYARD WORK

## *Thor* No. 7 Grinding Machine

---

### A Labor Saver

The Only Successful Air Grinding Machine Yet Produced

SENT ON TRIAL



*Thor* No. 7, Portable Pneumatic Grinding Machine. Weight, 20 lbs. Designed for grinding castings, polishing, buffing, etc. Easily controlled. Speed, 3000 rev. per min. Consumes about 20 cu. ft. of free air per minute at 80 lbs. pressure.

This Machine is of the reciprocating piston type, having four pistons direct acting on the crank, and is equipped with the *Corliss Valve Motion*, which gives it a great power.

The grinding spindle is carried in a housing extending from the end of the motor in line with the crank shaft, and runs on ball bearings, and has a packing ring which prevents the lubricating oil from running out of the machine.

A grip handle in line with grinding spindle and the outside housing of spindle serves as handles.

Mandrels of suitable length or shape may be attached to grinding spindle for driving emery wheels, buffing or polishing discs.

## *Thor* Pneumatic One-Piece Long-Stroke Riveting Hammers

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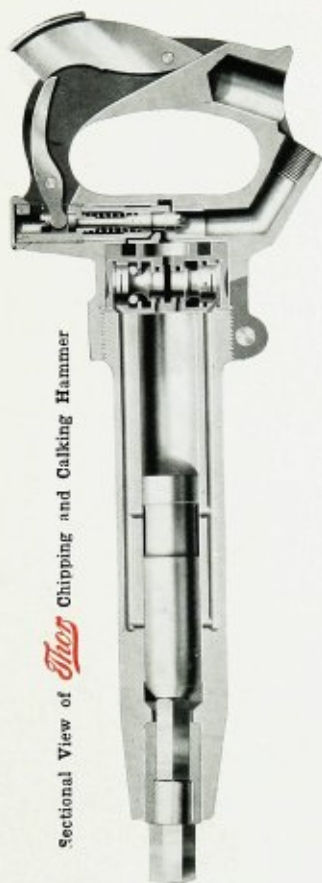


THE main feature and the great advantage of the *Thor* Long-Stroke Riveting Hammer is in its ONE-PIECE CONSTRUCTION. The handle, barrel and valve chambers are all in one solid piece of steel forging. All other makes of riveting hammers are made in three main parts—barrel, valve block and handle—necessitating the use of couplings, clamps, keys, lock-nuts, and other complicated mechanism, which frequently break, become loose and cause considerable delay, annoyance and expense by the necessity of their having to be renewed or tightened.

The main valve of the *Thor* Long-Stroke Hammer lies parallel with the main bore, but is not directly operated with the air in the downward stroke. When the piston returns, it opens what is termed the auxiliary valve, the office of which is to admit a slight amount of air, which lightly starts the piston downward, and also supplies air for the power stroke. After short travel in the downward direction, the main valve opens and admits the full volume of air direct and very close to the piston. The piston, therefore, from a gentle start gets an extremely forceful and quick acting blow and quicker return, with practically no vibration. On account of its one-piece construction, the hammer is lighter and shorter than any other make. There is no part of the hammer that can possibly work loose from vibration. All parts of the *Thor* Long-Stroke Hammer are easily accessible. The throttle valve is arranged so that a light or heavy blow can be given at will. The ONE-PIECE Long-Stroke Riveting Hammers have no delicate mechanism, are very easily handled and operated, and do very effective work.

## *Thor* Chipping, Calking and Light Riveting Hammers

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Sectional View of *Thor* Chipping and Calking Hammer

ARE equipped with duplex valves, which, on account of their extreme lightness and the double-action, throw open the air inlet quicker and more direct and leave a larger exhaust area than is possible with hammers equipped with a single valve. The air enters the hammer through inlet below handle, being controlled by the trigger. It enters the chamber at the rear of the cylinder and presses apart the two valves in this chamber, allowing the air to enter behind the piston. The piston is driven forward until the port near the end of the stroke is uncovered. This admits air to the outer sides of the valves, and as the area of the outer sides is larger than that of the inner, the excess pressure causes the valves to close. Air is then admitted

to the opposite end of the piston, driving it back until another set of ports is uncovered, releasing the air on outer sides of valves when the valves will again be forced open.

The *Thor* Chipping and Calking Hammers are of simple construction, very easily operated, and most efficient in their work.



## *Thor* One-Piece Long Stroke Riveting Hammers

Made of One Solid Piece of Drop Forging

---



*Thor* No. 60 Long Stroke One-Piece Riveting Hammer  
For driving rivets up to  $\frac{3}{4}$  Inch Diameter



*Thor* No. 80 Long Stroke One-Piece Riveting Hammer  
For driving rivets up to  $\frac{1}{2}$  Inch Diameter



*Thor* No. 90 Long Stroke One-Piece Riveting Hammer  
For driving rivets up to  $1\frac{1}{4}$  Inches Diameter

UNEXCELLED for Bridge, Boiler and Structural Riveting. The Ideal Riveting Hammer. *Made of One Solid Piece of Drop Forging, obviating all difficulty* usually experienced with coupling between the barrel and handle, breaking or loosening in other makes of riveting hammers (which all have these parts separate), necessitating frequent tightening of the nuts and consequent trouble and expense.

*These hammers are not an experiment. THEY ARE A DECIDED SUCCESS.* They will drive rivets faster and better and cost about 50 per cent less for maintenance than any other air hammers on the market.



## Pneumatic Riveting Hammers

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The highest development in air tool construction is represented in the *Thor*



No. 40 Riveting Hammer. Weight 13 lbs.

For Automobile and other light Riveting, up to  $\frac{1}{2}$  inch diameter.

FAR SUPERIOR TO ALL OTHER MAKES



No. 50 Riveting Hammer. Weight 15 lbs.

For Tank and light Structural Iron Riveting, up to  $\frac{3}{4}$  inch diameter.

Sent on trial. Express charges paid both ways  
if not satisfactory



## *Thor* Pneumatic Calking, Chipping and Beading Hammers

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*Thor* No. 1 Hammer  
Weight, 8 lbs.  
For very Light Chipping  
and Scaling



*Thor* No. 2 Hammer  
Weight, 9 lbs.  
For Light Chipping, Calking  
and Beading Flues



*Thor* No. 3 Hammer  
Weight, 10 lbs.  
For General Chipping and  
Calking



*Thor* No. 4 Hammer  
Weight, 11 lbs.  
For Heavy Chipping



*Thor* No. 5 Hammer. Weight, 12 Lbs.  
For Extra Heavy Chipping

## *Thor* Pneumatic Tools Holders-On

---



*Thor* No. 1 Pneumatic  
Holder-On

Furnished complete with Carry-  
ing Handle, Stop Valve  
and Rivet Set



*Thor* No. 2 Pneumatic  
Holder-On

Furnished complete with Live-Air Handle  
and Rivet Set

*Thor* Pneumatic Holder-On is of the single Piston type, made with a heavy Case-Hardened Steel Plunger, with ample area to hold Rivet against the work, and provided with a Spring pressed Plunger to hold the Rivet Set. This Holder-On is as simple as it can be made, and does the work satisfactorily.

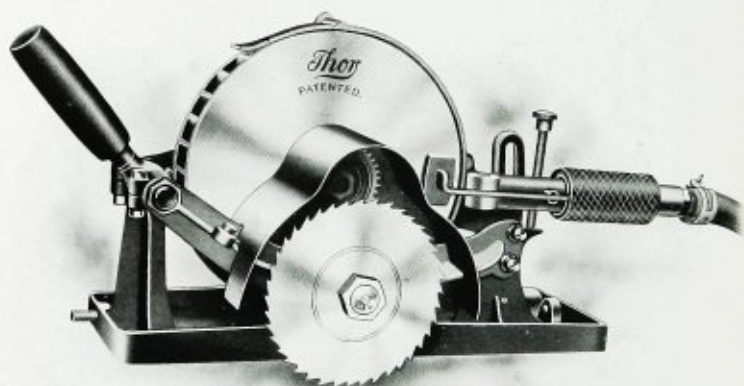
Very economical and efficient device for use in connection with Riveting Hammers. Made from steel and carefully fitted.

Shortest length over all, including set,  $10\frac{1}{2}$  inches. Diameter of Piston,  $3\frac{1}{8}$  inches. Stroke of Piston, 4 inches. Distance from Center of Rivet Set to Side of Cylinder,  $1\frac{1}{4}$  inches. Weight, 20 lbs. Size Hose Connection,  $\frac{3}{8}$  inch.



## Portable Pneumatic Turbine Saw

---



### Pneumatic Wood Saw

SENT ON APPROVAL AT OUR EXPENSE

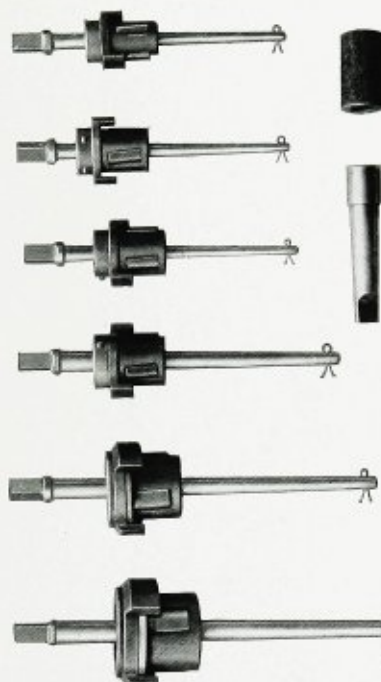
**E**SPECIALLY DESIGNED for railroad car shops, ship builders and contractors, for cutting and trimming roofs, doors, sides, floors, etc. Weight, 20 lbs.; speed 8,000 rev. per minute. Dimensions: Length, 14 inches; width, 4½ inches; height, 9 inches. Uses 35 cubic feet free air per minute at 80 lbs. pressure.



AIR TOOLS ALWAYS GIVE SATISFACTION

*Thor* Pneumatic Tools  
Flue Rollers, Special Air-Hose

---



*Thor* Flue Rollers or Expanders. For use with Air Machines.  
Self-Feeding. Made in all sizes.



*Thor* Special Air Hose, 7 ply. Very best quality. Made expressly  
for use in connection with pneumatic tools. Furnished plain or  
wire wound, in any size or length desired.

# The *Thor* Hose Couplings

For Pneumatic or Water Use

---



1. This coupler is absolutely tight.
2. Both parts are alike—no male or female parts.
3. Gaskets cannot blow or fall out.
4. Made of tough bronze—cannot corrode.
5. Made for 1 inch,  $\frac{3}{4}$  inch,  $\frac{1}{2}$  inch,  $\frac{3}{8}$  inch hose or pipe with the same sized head, so that small hose can be coupled to large without the use of reducers.
6. Coupled by a third turn of the hose.
7. Made in hose to hose or pipe to hose with screwed end connections, as in illustration.
1. Leaky joints reduce compressor capacity.
2. Both ends of hose have duplicate couplings.
3. No time wasted looking for washers.
4. Not affected by weather or moisture.
5. Cannot be blocked by dirt between working parts.
6. This is where time is saved.
7. Can be connected in one-tenth of the time required for ordinary couplers.
8. No stripped threads or delays.

IN ORDERING HOSE COUPLINGS PLEASE SPECIFY WHETHER COMPLETE OR HALF COUPLINGS, HOSE TO HOSE OR HOSE TO PIPE ARE DESIRED

# The *Thor* Pneumatic Rivet Forge

---



## WHAT IT DOES

1. It heats easily 200 rivets per hour.
2. It does not burn rivets.
3. It has a constant fuel feed.
4. It consumes only two cubic feet of air per minute, and burns a small amount of fuel per day.
5. It weighs fifty (50) pounds, about half as much as a hand forge.
6. It heats 20 rivets at once.

## HOW IT IS OPERATED

THE hollow cylinder above the fire contains the fuel, which descends in a highly heated condition and feeds it. The cylinder and funnel arrangement from which the air hose is led is an *efficient* pneumatic *Draught Inducer* that maintains a steady and easily regulated air supply.

The upper part of the forge is pivoted, enabling the operator to reach any rivet by simply revolving the fire bed.

Thus it is simple in operation and can be efficiently worked by inexperienced rivet heaters.

---

## CONSEQUENTLY

1. You can work your compression riveter or air hammers to their fullest capacity.
2. It effects a saving of rivets and furnishes a smooth hot rivet that is not burned or melted on the end.
3. There is no delay on account of having to clean the fire.
4. It is as economical as a hand forge, everything considered.
5. It can be used on scaffold platform or trestle work.
6. Different sizes of rivets can be in fire and available at all times.



# AIR COMPRESSORS

## STEAM BELT AND MOTOR DRIVEN

OF THE MOST IMPROVED TYPES  
FURNISHED IN ALL CAPACITIES

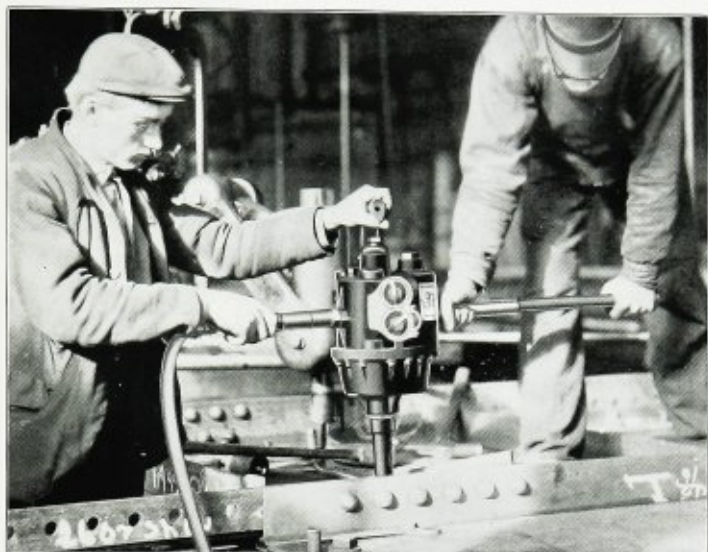


INSTALLATION OF  
**COMPLETE AIR PLANTS**  
OUR SPECIALTY

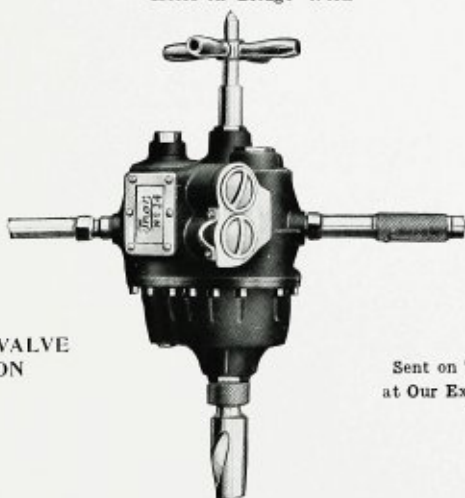
LET US BID  
ON YOUR REQUIREMENTS



## Non-Reversible Piston Air Drills



No. 24 Non-Reversible Piston Air Drill Extra Heavy Reaming 1 Inch Holes on Bridge Work



CORLISS VALVE  
MOTION

Sent on Trial  
at Our Expense



No. 24 Non-Reversible Piston Air Drill. Compound gearing. Slow speed. For extra heavy drilling, reaming, tapping, boring cylinders, etc.

**Thor**

## Non-Reversible Piston Air Drills



**Thor** No. 0 Drill Reaming  $1\frac{1}{2}$  Inch Holes, and No. 90 **Thor** Long Stroke Riveting Hammer driving  $1\frac{1}{2}$  Inch Rivets in Steel Bridge Work

Sent on  
Trial  
at Our  
Expense

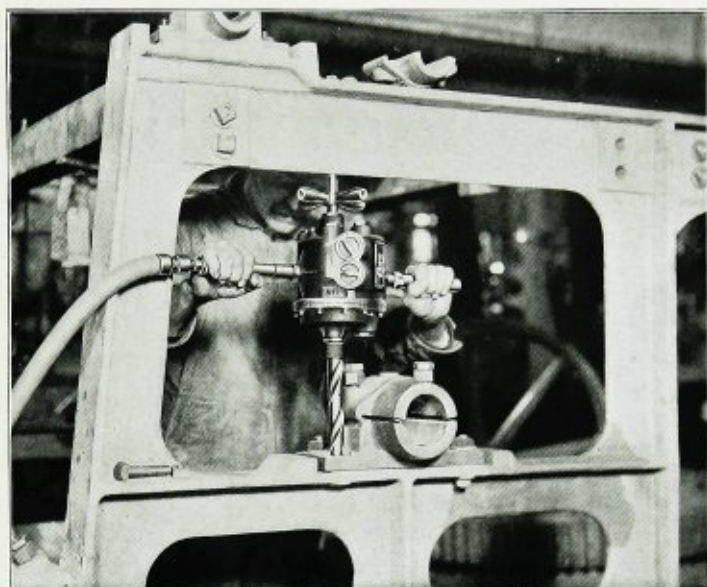


Very  
Economical  
in Use of  
Air

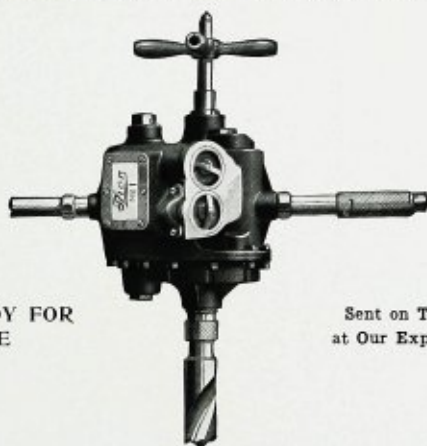
**Thor** No. 0 Non-Reversible  
For Drilling up to 3 inches in  
tapping up to  $2\frac{1}{2}$  inches in

Piston Air Drill. Weight, 55 lbs.  
diameter, and reaming and  
diameter.

## *Thor* Non-Reversible Piston Air Drills



*Thor* No. 1 Non-Reversible Piston Air Drill Drilling Special Mining Machinery



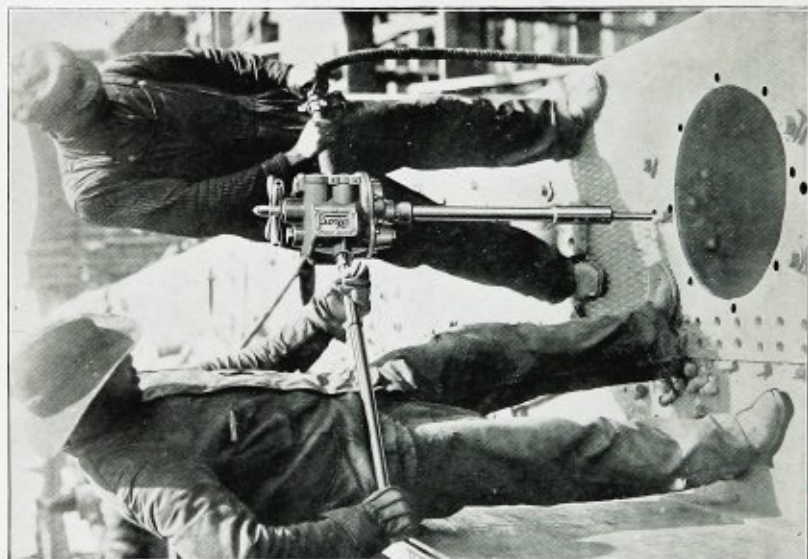
ALWAYS READY FOR  
SERVICE

Sent on Trial  
at Our Expense

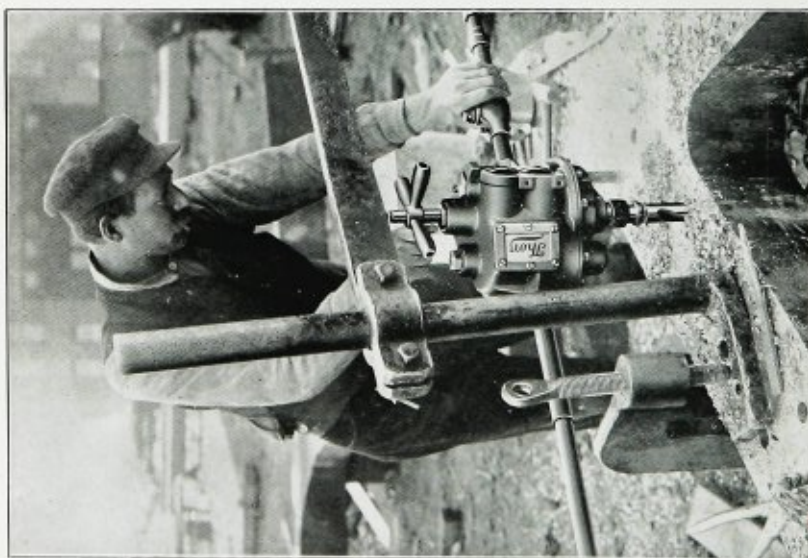
*Thor* No. 1 Piston Air Drill. Weight, 38 lbs. Adapted to drilling up to 2½ inches in diameter, and reaming and tapping up to 2 inches in diameter.



# *Thor* Non-Reversible Piston Air Drills



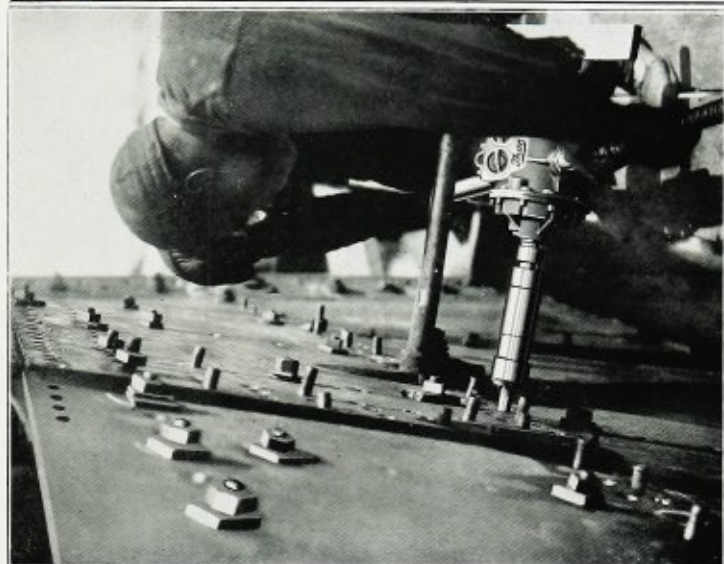
*Thor* Drill No. 1 Reaming on Deck of Ship



*Thor* Drill No. 1 Drilling Wrought Steel Stern Frame

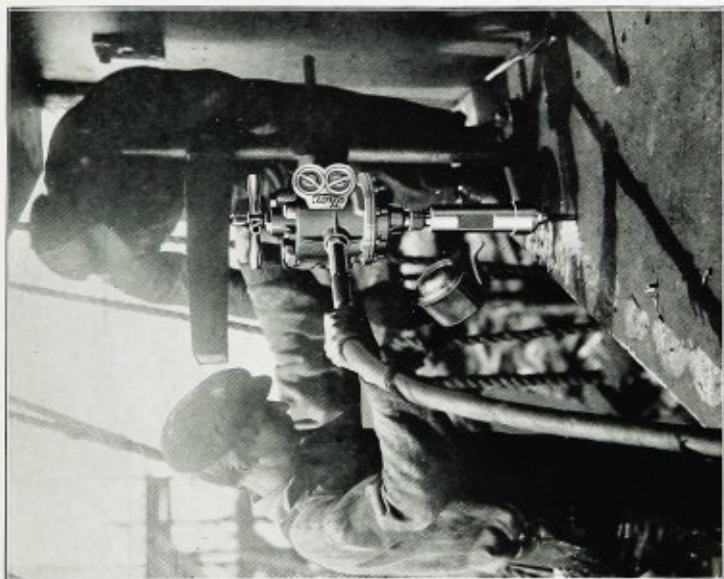
*Thor*

## Non-Reversible Piston Air Drills



Drill No. 1 Drilling on Side of Ship 50 Feet above Ground

*Thor*



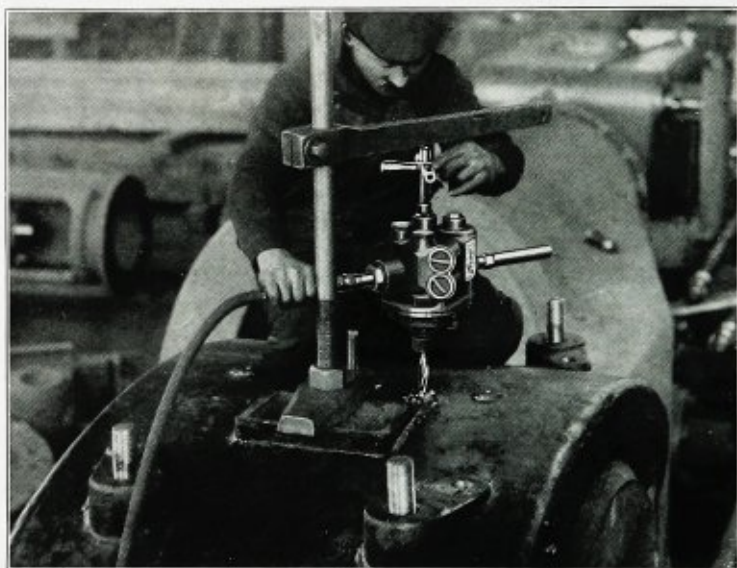
Drill No. 2 Drilling Nickel Steel on Ship Work

*Thor*



**Thor**

## Non-Reversible Piston Air Drills



**Thor**

No. 2 Drill Drilling  $1\frac{1}{4}$  Inch Stud Holes



ALL PARTS  
INTER-  
CHANGEABLE

Sent on Trial  
at Our Expense

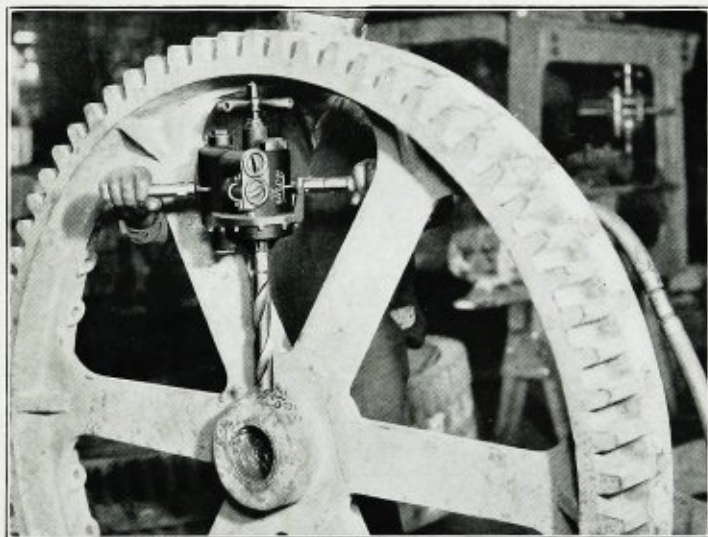
**Thor**

No. 2 Piston Air Drill. Weight, 25 lbs. Designed for drilling up to  $1\frac{1}{4}$  inches in diameter, and reaming and tapping up to  $\frac{7}{8}$  inch in diameter.

## *Thor* Non-Reversible Piston Air Drills

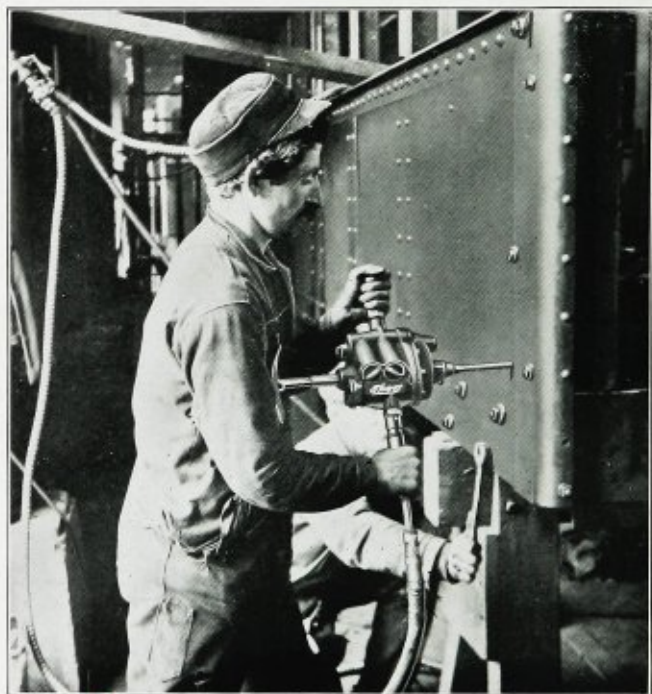


*Thor* No. 1 Drill Reaming  $1\frac{1}{8}$  Inch Rigging Block Holes  
on Ship Work



*Thor* No. 2 Piston Air Drill Drilling 1 Inch Oil Hole  $3\frac{1}{2}$  Inches Deep  
in Cast Steel Gear Wheel

## *Thor* Non-Reversible Piston Air Drills



*Thor*

No. 4 Drill Reaming  $\frac{3}{4}$  Inch on Steel Passenger Car Work

Easy to Operate



Their Simplicity of  
Construction  
Appeals  
to all Mechanics

*Thor*

No. 4 Piston Air Drill. Weight, 16 lbs. Speed, 500 rev. per min. For drilling up to  $\frac{1}{2}$  inch diameter and reaming up to  $\frac{3}{4}$  inch diameter.

Sent on Approval

**Thor**

## Non-Reversible Piston Air Drills



**Thor** Nos. 3 and 4 Piston Air Drills Drilling and Reaming on Steel Passenger Car Work



**Thor** No. 3 Piston Air Drill. Weight, 10 lbs. Two speeds—fast speed (1500 rev. per min.) for light drilling, and slow speed (750 rev. per min.) for medium drilling up to  $\frac{3}{16}$  inch in diameter. Furnished with breast-plate, screw-feed, Standard No. 0 chuck, grip-handle and No. 1 Morse taper.

MODERN DRILLS—**Thor**—USED ON MODERN PASSENGER EQUIPMENT

SENT ON APPROVAL



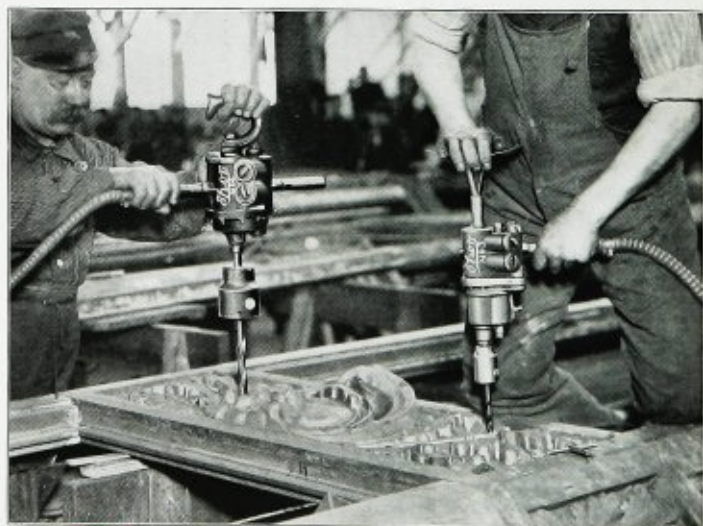
*Thor*

## Non-Reversible Piston Air Drills



*Thor*

Nos. 3 and 4 Drills Drilling  $\frac{9}{16}$  and Reaming  $\frac{3}{4}$  Inch  
on Automobile Frames

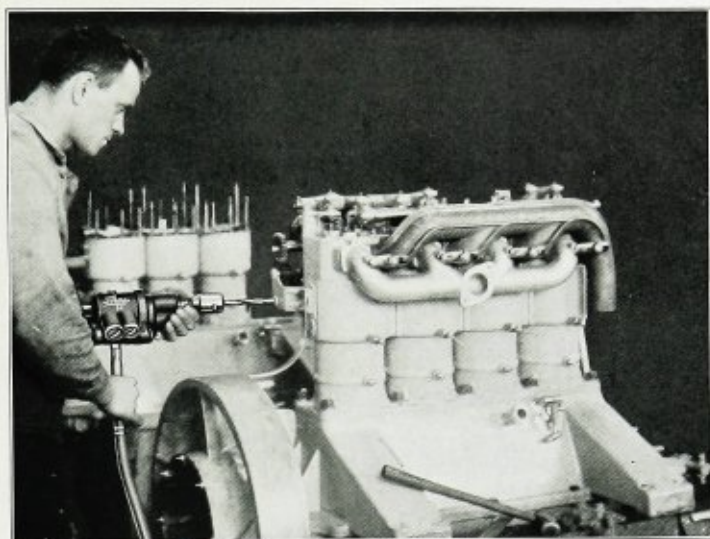


*Thor*

Nos. 3 and 4 Piston Air Drills Drilling in Architectural  
Iron Work



## *Thor* Non-Reversible Piston Air Drills



*Thor* No. 10 Drill Drilling Automobile Engine

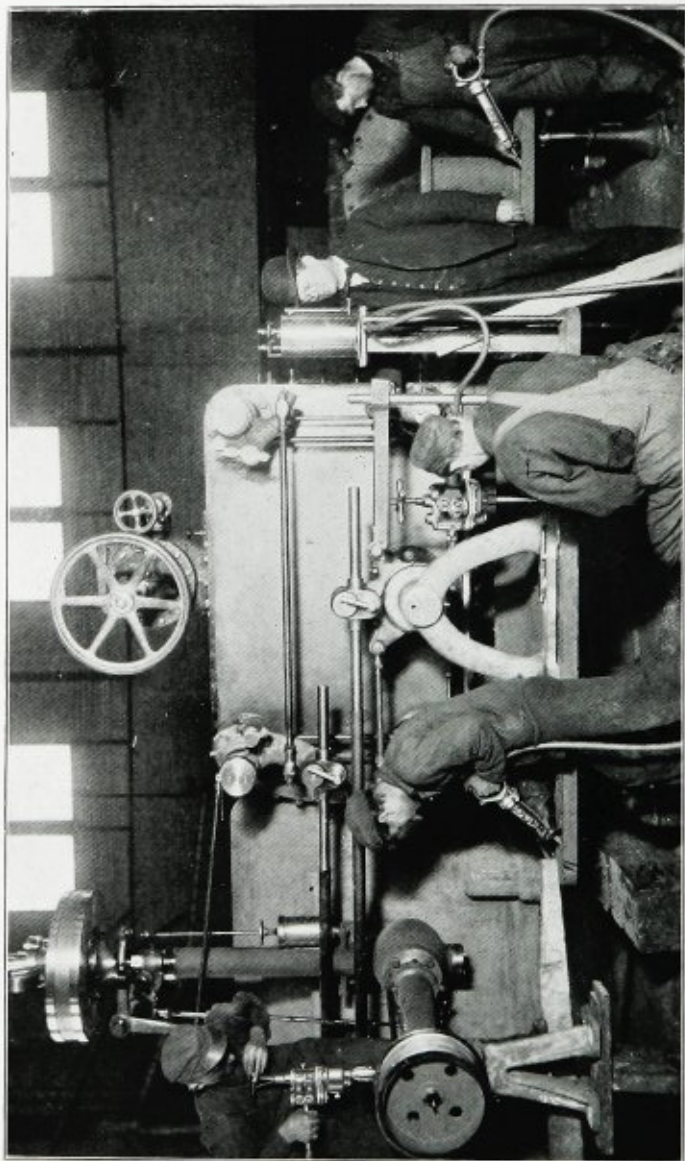
CORLISS  
VALVE MOTION



SENT ON APPROVAL

*Thor* Piston Air Drill No. 10. Weight, 8 lbs. One speed, 1500 rev. per min. Furnished with breast plate, screw feed and Standard No. 0 chuck. Unexcelled for all classes of drilling in metal up to  $\frac{1}{2}$  inch in diameter. Used extensively by railroads for drilling safety holes in staybolts, and by automobile builders and machine shops for light drilling.

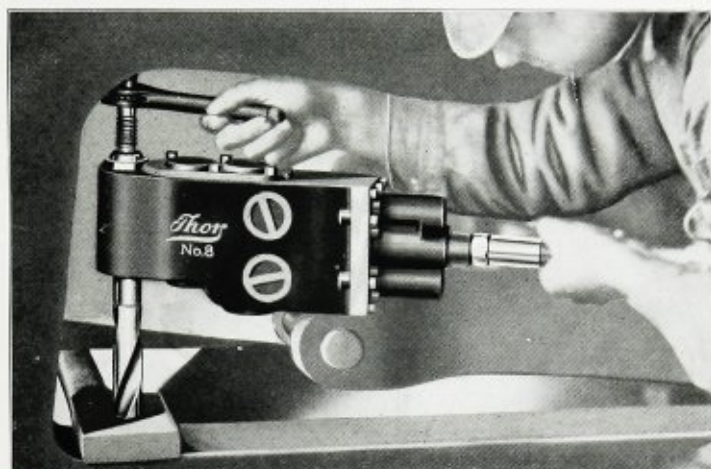
## *Thor* Non-Reversible Piston Air Drills



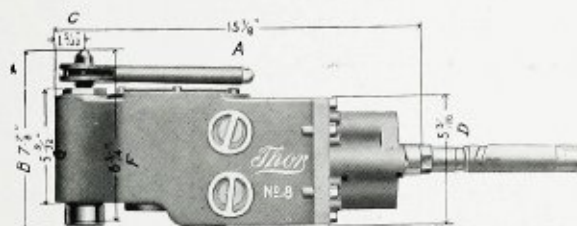
*Thor* Nos. 2 and 10 Piston Air Drills and *Thor* Nos. 2 and 3 Pneumatic Chipping Hammers Drilling and Chipping on Corliss Engine



## Close-Quarter Piston Air Drills



No. 8 Close-Quarter Drill at Work Drilling  $1\frac{1}{2}$  Inch Diameter Tie-Brace Bolt Holes on Locomotive Frames in Close Quarters



**Thor** No. 8 Close-Quarter Drill. Weight, 26 lbs. Speed, 175 rev. per min. Will drill up to 2 inches in diameter and ream up to  $1\frac{1}{4}$  inches in diameter.

### Dimensions

A—Distance from throttle connection to outside of spindle case.....	15 $\frac{3}{8}$ in.
B—Distance from point of feed screw to end of socket.....	7 $\frac{1}{8}$ in.
C—Radius from center of feed screw to outside of case.....	1 $\frac{5}{32}$ in.
D—Width of case at cylinder flanges.....	5 $\frac{1}{16}$ in.
G—Width of case at spindle.....	5 $\frac{3}{8}$ in.



## Reversible Piston Air Drills



No. 25 Reversible Compound Drill, Rolling 4-inch Flues

Most  
Powerful  
Air  
Machine  
Made



Sent on  
Trial  
at Our  
Expense

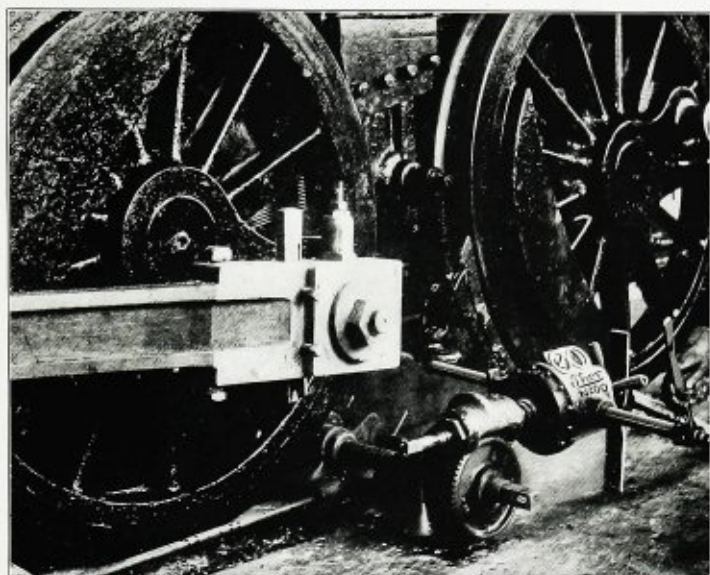


No. 25 Reversible Piston Air Drill. Compound gearing. Slow speed. For extra heavy drilling, reaming, tapping, boring cylinders, rolling flues 4 inches diameter, etc.

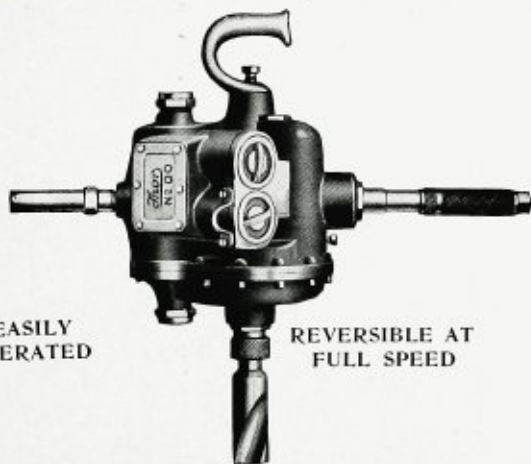


*Thor*

## Reversible Piston Air Drills

*Thor*

No. 00 Reversible Drill Setting Valves on Locomotive



EASILY  
OPERATED

REVERSIBLE AT  
FULL SPEED

*Thor*

No. 00 Reversible Piston Air Drill. Weight, 55 lbs. For drilling up to 3 inches diameter, tapping and reaming up to  $2\frac{1}{2}$  inches in diameter, rolling 4 inch flues, valve setting, etc.



*Thor*

## Reversible Piston Air Drills

*Thor*

No. 21 Reversible Drill Putting in Flexible Staybolts



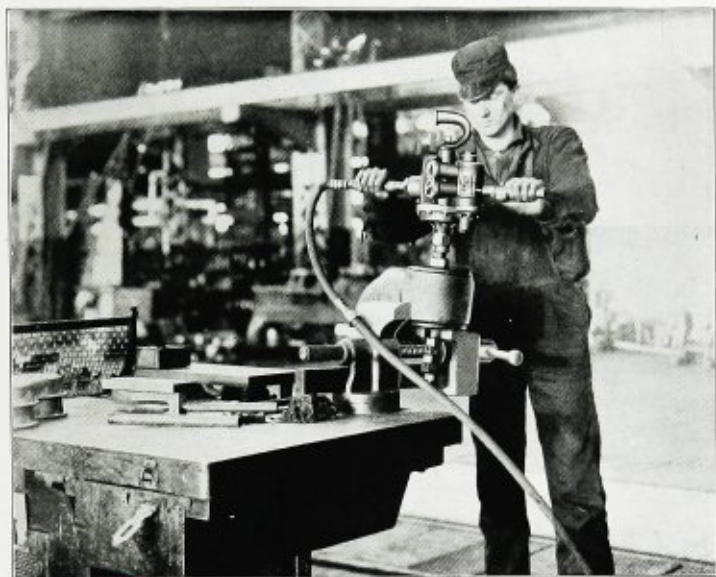
EFFICIENT  
AND  
DURABLE

NO DELICATE  
MECHANISM

*Thor* No. 21 Reversible Piston Air Drill. Weight, 38 lbs. For Drilling up to  $2\frac{1}{2}$  inches, reaming and tapping up to 2 inches, and rolling flues up to 3 inches in diameter.

*Thor*

## Reversible Piston Air Drills

*Thor*

No. 22 Reversible Drill Grinding Throttle Joins

DISCARD  
YOUR  
OBSOLETE  
AND  
UNSATIS-  
FACTORY  
AIR TOOLS



ADOPT  
THE  
IMPROVED  
AND  
ECONOMI-  
CAL  
*Thor*  
AIR  
TOOLS

*Thor* No. 22 Reversible Air Drill. Weight, 25 lbs. For drilling up to  $1\frac{1}{4}$  inches, reaming and tapping up to 1 inch, and rolling flues up to  $2\frac{1}{2}$  inches in diameter.

## *Thor* Reversible Wood-Boring Machines



*Thor* No. 14 Reversible Wood-Boring Machine Boring Holes for Car Floor Washers 3 $\frac{1}{2}$  Inches in Diameter



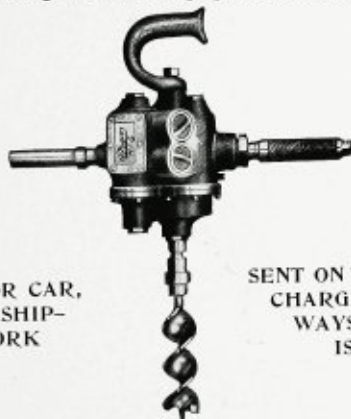
UNEXCELLED  
FOR ALL  
CLASSES OF  
HEAVY WOOD  
BORING

*Thor* No. 14 Reversible  
Wood-Boring Machine.  
Weight, 24 lbs. For boring  
into Wood up to 4 inches  
in diameter.

## *Thor* Reversible Wood-Boring Machines



*Thor* No. 5 Wood-Boring Machine Boring  $2\frac{1}{2}$  Inch Hole through 12 Inch Timber



INVALUABLE FOR CAR,  
DOCK AND SHIP-  
YARD WORK

SENT ON TRIAL. EXPRESS  
CHARGES PAID BOTH  
WAYS IF NOT SAT-  
ISFACTORY

*Thor* No. 5 Reversible Wood-Boring Machine. Weight, 15 lbs.  
For boring into wood up to  $2\frac{1}{2}$  inches in diameter.



**Thor**

## Reversible Wood-Boring Machines

**Thor**

No. 6 Reversible Wood-Boring Machine, Boring 1 Inch Diameter Holes in Car End Posts

REVERSED  
INSTANTLY WHILE  
RUNNING  
AT FULL SPEED



THE ONLY  
REVERSIBLE  
BORING MACHINE  
OF ITS  
SIZE MADE

**Thor**

No. 6 Reversible Wood-Boring Machine. Weight, 8 lbs. Will bore into wood up to 1 inch diameter. Has two speeds, fast (1500 rev. per min.) for light work, and slow (750 rev. per min.) for medium work up to its capacity.



## *Thor* Pneumatic Grinding Machine



*Thor* No. 7 Grinding Machine Grinding Channel Ends on Steel Passenger Car



THE ONLY SUCCESSFUL AIR  
GRINDING MACHINE  
YET PRODUCED

SENT ON TRIAL

*Thor* No. 7 Portable Pneumatic Grinding Machine. Weight, 20 lbs. Adapted for grinding castings, polishing, buffing, etc. Easily controlled. A great time and labor saver. Speed, 3,000 revolutions per minute.

## *Thor* One-Piece Riveting Hammers

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*Thor* No. 90 One-Piece Riveting Hammer Driving 1 Inch Rivets  
in Cement Mixer

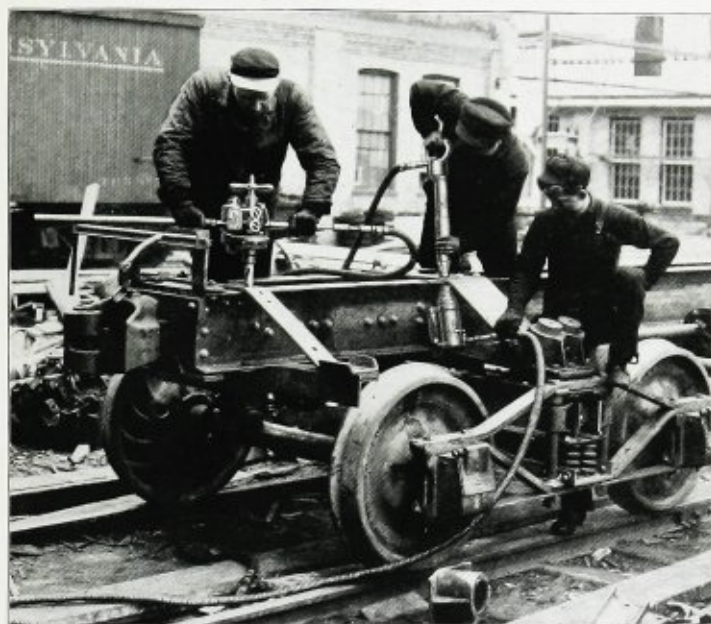


*Thor* No. 90 One-Piece Long-Stroke Riveting Hammer. Weight, 21 Lbs. Suitable for Driving Rivets up to 1½ Inch in Diameter

MOST POWERFUL AND EFFICIENT RIVETING  
HAMMER YET PRODUCED

## *Thor* One-Piece Long-Stroke Riveting Hammers

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*Thor* No. 60 Long-Stroke Riveting Hammer Driving  $\frac{3}{4}$  Inch Rivets, and Piston  
Air Drill No. 2 Reaming  $\frac{3}{4}$  Inch Holes in Dump Cars



*Thor* No. 60 One-Piece Long-Stroke Hammer. For driving rivets  
up to  $\frac{3}{4}$  inch. Weight, 21 lbs. Made of one solid piece of drop forging.

Sent on Trial at Our Expense

## *Thor* Riveting Hammers

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*Thor* No. 50 Riveting Hammer Driving  $\frac{3}{8}$  Inch Rivets in Steel Bolsters



*Thor* No. 50 Pneumatic Riveting Hammer. Weight, 15 lbs.  
Will drive rivets up to  $\frac{3}{8}$  inch.

THE MOST PROGRESSIVE PLANTS IN THE WORLD HAVE  
ADOPTED *Thor* PNEUMATIC TOOLS AS A STANDARD

## *Thor* Pneumatic Chipping and Calking Hammers

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*Thor* No. 5 Pneumatic Hammer Chipping Steel Castings

EQUIPPED WITH DUPLEX VALVES



*Thor* No. 5 Pneumatic Chipping Hammer. Weight, 12 lbs.  
For extra heavy chipping.





## Pneumatic Chipping and Calking Hammers



*Thor* Nos. 3 and 4 Pneumatic Hammers Chipping Cylinder Castings

*Thor*

## Pneumatic Chipping and Calking Hammers

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*Thor*

No. 3 Pneumatic Hammer Chipping on 10 Ton Fly-Wheel Casting

ECONOMICAL IN USE OF AIR



PERFECT CONTROL

*Thor*

No. 3 Pneumatic Chipping Hammer. Weight, 10 lbs. For general chipping and calking.

*Thor* Pneumatic  
Chipping and Calking Hammers

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*Thor* No. 2 Pneumatic Chipping and Calking Hammer Calking Mud Ring

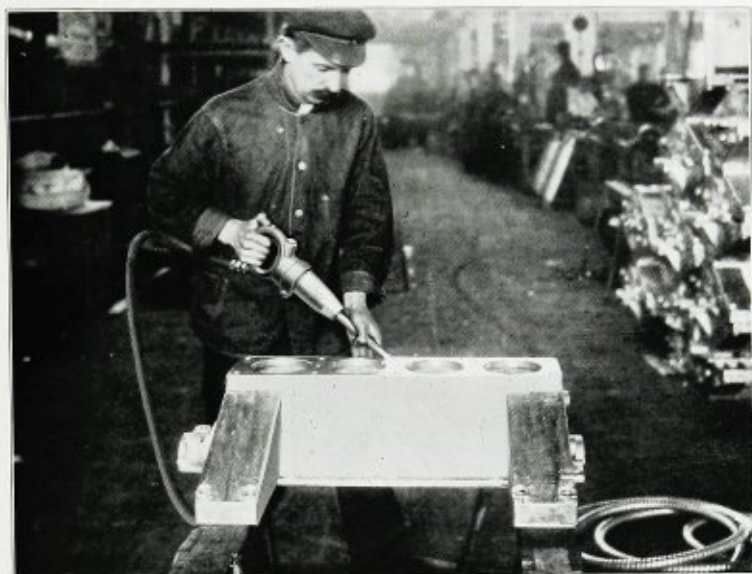
Sent on Trial at Our  
Expense



*Thor* No. 2 Pneumatic Chipping, Calking and Beading  
Hammer. Weight 9 Lbs.

## *Thor* Pneumatic Chipping Hammers

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*Thor* No. 1 Pneumatic Hammer Chipping Casting

USE *Thor*  
HAMMERS TO  
SECURE  
BEST RESULTS

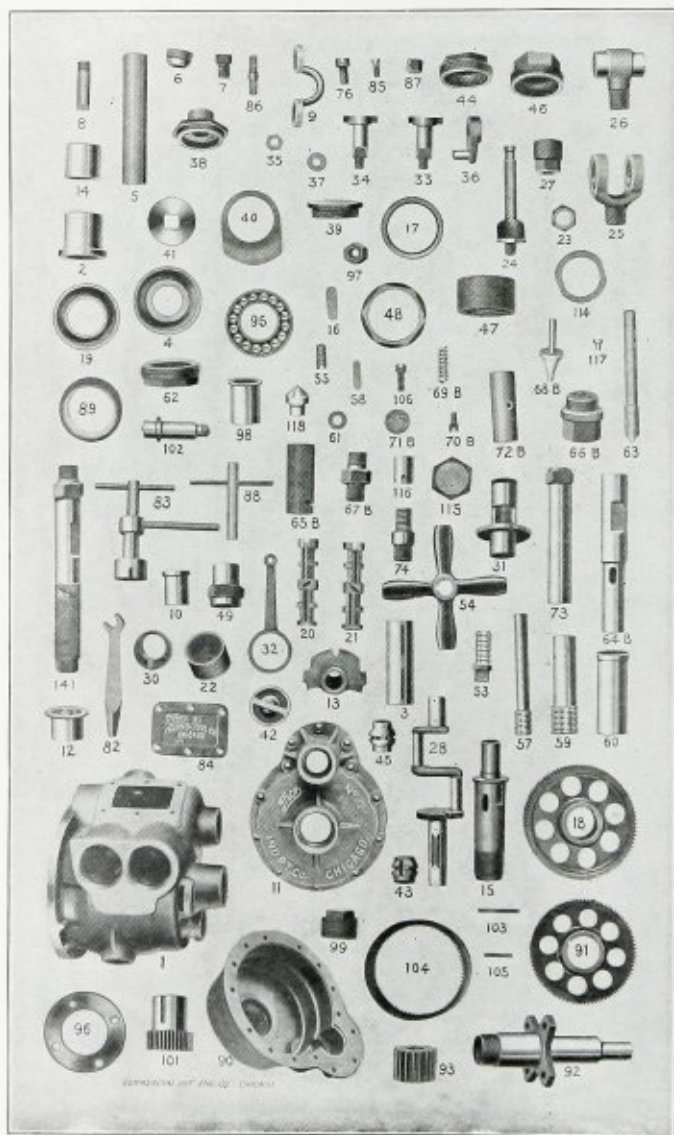


ALWAYS  
RELIABLE

*Thor* No. 1 Pneumatic Hammer. Suitable for very light chipping and scaling. Weight 8 lbs.



## Non-Reversible Piston Air Drills



Parts for Non-Reversible Piston Air Drills. Sizes 0, 24, 1, 2 and 4





# Non-Reversible Piston Air Drills

Sizes 0, 24, 1, 2 and 4

## LIST OF PARTS

In ordering parts, please always SPECIFY the SIZE and SERIAL NUMBER of the DRILL, in addition to the numbers and names of the parts given in the list.

When returning machines for repairs, ship same to our works at AURORA, ILLINOIS.

SYM- BOL	No. PCS.	DESCRIPTION	SYM- BOL	No. PCS.	DESCRIPTION
1	1	Cylinder	58	1	Feed Screw Key
2	1	Spindle Bushing	59	1	Inner Feed Sleeve
3	2	Valve Bushing	60	1	Outside Feed Sleeve
4	1	Lower Ball Race	61	1	Ejecting Pin Retainer
5	1	Oil Tube	62	1	Nut for Feed Sleeve
6	1	Oil Tube Plug	63	1	Ejecting Pin
7	1	Oil Tube Screw	64B	1	Live Air Handle Stem, Non-Reversible
8	1	Vent Tube	65B	1	Live Air Handle Sleeve, "
9	1	Suspension Hook	66B	1	Live Air Handle Cap, "
10	1	Upper Crank Bushing for No. 0	67B	1	Live Air Handle Plug, "
11	1	Gear Case—See 90	68B	1	Live Air Handle Valve, "
12	1	Gear Case Bushing	69B	1	Live Air Handle Valve Spring, "
13	1	Center Plate	70B	1	Live Air Handle Screw, "
14	1	Center Plate Bushing	71B	1	Live Air Handle Strainer, "
15	1	Spindle	72B	1	Live Air Handle Valve Lift, "
16	1	Spindle Key	141	1	Live Air Handle (Complete), "
17	1	Collar for Spindle	73	1	Dead Handle Stem
18	1	Gear Wheel	74	1	Dead Handle Plug
19	1	Upper Ball Race	76	2	Screws for Suspension Hook
20	1	Right Valve	82	1	Toggle Wrench
21	1	Left Valve	83	1	Piston Wrench
22	4	Piston	84	2	Crank Chamber Plate
23	4	Connecting Rod Nut	85	12	Crank Chamber Plate Screw
24	4	Connecting Rod and Socket	86	15	Gear Case Studs
25	2	Outside Toggle	87	15	Gear Case Stud Nuts
26	2	Inside Toggle	88	1	Socket Wrench for Cylinder Stud Nuts
27	4	Toggle Nut	88A	1	Valve Lapping Rod or Mandrel
28	1	Crank	89	1	Packing for Spindle
30	1	Eccentric and Driver	90	1	Gear Case for No. 24
31	1	Center Plate for No. 0	91	1	Compound Gear for No. 24
32	2	Eccentric Strap	92	1	Spindle No. 24
33	1	Right Valve Stud	93	4	Intermediate Gear for No. 24
34	1	Left Valve Stud	95	1	Ball Retainer Complete
35	2	Valve Stud Nut	96	1	Stud Plate No. 24
36	2	Valve Lever	97	4	Nuts for Intermediate Gear Studs No. 24
37	2	Valve Stud Washer	98	1	Lower Crank Bushing for No. 24
38	2	Inner Valve Stud Guide	99	1	Lower Crank Cap for No. 24
39	2	Exhaust Cap	101	1	Compound Pinion for No. 24
40	2	Exhaust Cap Deflector	102	4	Intermediate Gear Stud No. 24
41	2	Screw Plate for Exhaust Cap	103	1	Key for Compound Gear No. 24
42	4	Cylinder Head	104	1	Internal Gear for No. 24
43	1	Lower Cap Bushing	105	1	Key for Internal Gear for No. 24
44	1	Lower Cap	106	12	Gear Case Screw for No. 4
45	1	Upper Cap Bushing	114	1	Check Nut for No. 0 Center Plate
46	1	Upper Cap	115	2	Crank Cap for No. 0
47	1	Protection Nut	116	1	Crank Sleeve for No. 0
48	1	Stuffing Box	117	1	Outer Feed Sleeve Key
49	1	Chuck—Square Socket	118	1	Feed Screw Center
53	1	Hose Nipple	15	$\frac{1}{16}$ "	Steel Balls for Nos. 1 & 24
54	1	Feed Handle	14	$\frac{3}{8}$ "	" " " " No. 0
55	1	Set Screw for Feed Handle	13	$\frac{1}{16}$ "	" " " " 2
57	1	Feed Screw	13	$\frac{1}{8}$ "	" " " " 4



## Reversible Piston Air Drills



Parts for Reversible Piston Air Drills Nos. 00, 25, 21, 22, 14 and 5



# Reversible Piston Air Drills

Nos. 00, 25, 21, 22, 14, and 5

## LIST OF PARTS

In ordering parts, please always SPECIFY the SIZE and SERIAL NUMBER of the DRILL in addition to the numbers and names of the parts given in the list.

When returning machines for repairs, ship same to our works at AURORA, ILLINOIS.

Sym- bol	No. Pcs.	DESCRIPTION	Sym- bol	No. Pcs.	DESCRIPTION	Sym- bol	No. Pcs.	DESCRIPTION
1	1	Cylinder	53	1	Hose Nipple	91	1	Compound Gear for No. 25 Drill
2	1	Spindle Bushing	64B	1	Live Air Handle Stem, Reversible	92	1	Spindle for No. 25 Drill
3	2	Valve	65B	1	Live Air Handle Sleeve, Reversible	93	4	Intermediate Gears for No. 25 Drill
4	1	Lower Ball Race	66B	1	Live Air Handle Cap, Reversible	95	1	Ball Retainer Complete
5	1	Oil Tube	68B	1	Live Air Handle Valve, Reversible	96	1	Stud Plate for No. 25 Drill
7	1	Oil Tube Screw	69B	1	Live Air Handle Valve Stem, Reversible	97	4	Nut for Intermediate Stud for No. 25 Drill
8	1	Vent Tube	70B	1	Live Air Handle Screw, Reversible	98	1	Lower Crank Bushing for No. 25 Drill
9	1	Suspension Hook	71B	1	Live Air Handle Strainer, Reversible	99	1	Lower Crank Cap for No. 25 Drill
10	1	Upper Crank Bushing for No. 00 Drill only	72B	1	Live Air Handle Operating Plug, Reversible	101	1	Compound Piston for No. 25 Drill
11	1	Gear Case	73	1	Dead Handle Stem	102	4	Intermediate Gear Stud for No. 25 Drill
12	1	Gear Case Bushing	74	1	Dead Handle Plug	103	4	Key for Compound Gears for No. 25 Drill
13	1	Center Plate	75B	1	Live Air Handle Valve Plate Screw, Reversible	104	4	Internal Gear for No. 25 Drill
14	1	Center Plate Bushing	76	2	Screw for Suspension Hook	105	4	Key for Internal Gear for No. 25 Drill
15	1	Spindle	77B	1	Live Air Handle Valve Plate, Reversible	106	12	Gear Case Screw for No. 5 Drill
16	1	Spindle Key	78B	1	Live Air Handle Adjusting Screw, Reversible	107	1	Crank Pinion for No. 14 and No. 5 Drills
17	1	Spindle Collar	79B	1	Live Air Handle Adjusting Washer, Reversible	108	1	Crank Pinion Key for No. 14 and No. 5 Drills
18	1	Gear Wheel	80B	1	Live Air Handle Clamp Nut, Reversible	109	1	Taper Shank Chuck for No. 5 Drill
19	1	Upper Ball Race	81B	1	Live Air Handle Locking Sleeve, Reversible	110	1	Screw for Taper Shank Chuck for No. 5 and No. 14 Drills
20	1	Right Valve	119B	1	Live Air Handle Dowel Pin Screw, Reversible	111	1	Taper Pin for Taper Shank Chuck for No. 5 and No. 14 Drills
21	1	Left Valve	142	1	Reversible Live Air Handle Complete	112	1	Taper Shank Chuck Retainer for No. 14 Drill
22	4	Piston	82	1	Toggle Wrench	113	1	Taper Shank Chuck for No. 14 Drill
23	4	Connecting Rod Nut	83	1	Piston Wrench	114	1	Check Nut for Center Plate for No. 00 Drill
24	4	Connecting Rod and Socket	84	2	Crank Chamber Plate	115	2	Crank Cap for No. 00 Drill
25	2	Outside Toggle	85	12	Crank Chamber Plate Screw	116	1	Crank Sleeve for No. 00 Drill
26	2	Inside Toggle	86	15	Gear Case Stud (See No. 106)	120	1	Wrench for Chuck
27	4	Toggle Nut	87	15	Gear Case Stud Nut	14	4"	Steel Balls for No. 00 Drill
28	1	Crank with Counterweight and plate, one forging	88	4	Socket Wrench for Cylinder Stud Nuts	15	5/16"	Steel Balls for Nos. 21 and 25 Drills
30	1	Eccentric and Driver	88A	1	Valve Lapping Rod or Mandrel	13	5/16"	Steel Balls for Nos. 22 and 14 Drills
31	1	Center Plate for No. 00 Drill	89	1	Packing for Spindle	13	1/2"	Steel Balls for No. 5 Drill
32	2	Eccentric Strap	90	1	Gear Case for No. 25 Drill			
33	1	Right Valve Stud						
34	1	Left Valve Stud						
35	2	Valve Stud Nut						
36	2	Valve Lever						
37	2	Valve Stud Washer						
38	2	Inner Valve Stud Guide						
39	2	Exhaust Cap						
41	2	Screw Plate for Exhaust Cap						
42	4	Cylinder Head						
43	1	Lower Cap Bushing						
44	1	Lower Cap						
45	1	Upper Cap Bushing						
46	1	Upper Cap						
47	1	Protection Nut						
48	1	Stuffing Box						
49	1	Chuck, Square Socket						
50	1	Grip Handle						
51	1	Ejecting Pin for Grip Handle						
52	1	Ejecting Screw for Grip Handle						

NOTE—Reversible Drills will be furnished with a Telescopic Screw Feed for Drilling or a Grip Handle for Reaming or Tapping as is specified by customer. For Screw Feed parts, see List of Parts, Non-Reversible Drills.

# *Thor* Piston Air Drills



Parts for Piston Air Drills Nos. 3, 6 and 10



### LIST OF PARTS

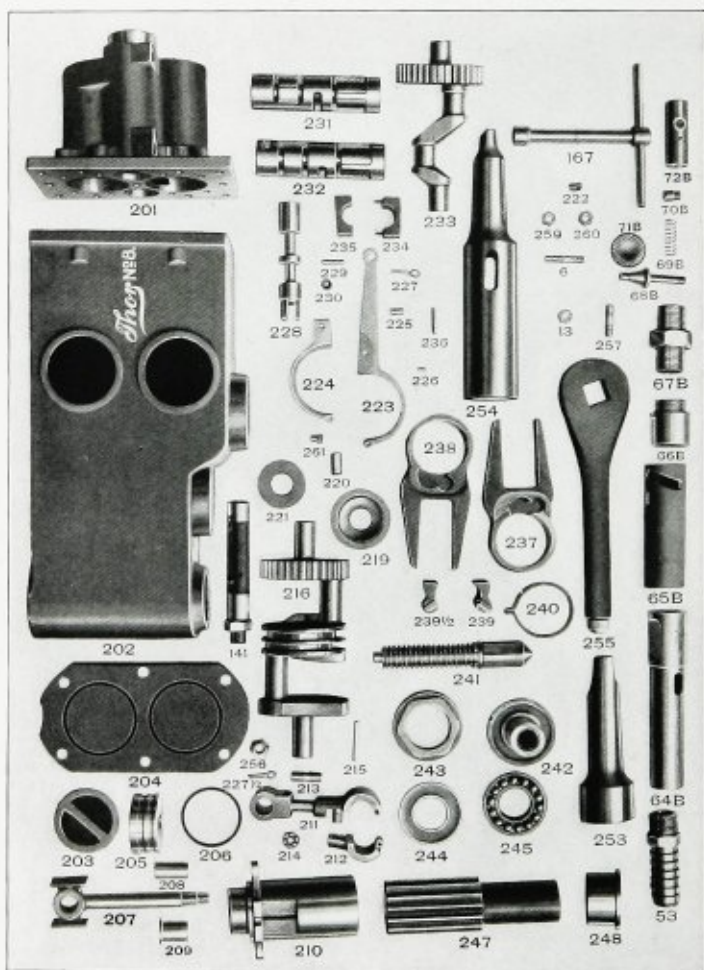
In ordering parts, please always SPECIFY the SIZE and SERIAL NUMBER of the DRILL in addition to the numbers and names of the parts given in the list.

When returning machines for repairs, ship same to our works at AURORA, ILLINOIS.

SYM- NO.	BOL	PCS.	DESCRIPTION	SYM- NO.	BOL	PCS.	DESCRIPTION
1A	1		Cylinder for No. 6 Drill	63	1		Feed Sleeve & Center for No. 3 & No. 10 Drills
1B	1		" " " " No. 3 & No. 10 Drill	64B	1		Non-Reversible Live Air Handle Stem for No. 3 & No. 10 Drills
2	1		Oil Tube	65B	1		Non-Reversible Live Air Handle Sleeve for No. 3 & No. 10 Drills
3	1		" " Plug	66B	1		Non-Reversible Live Air Handle Cap for No. 3 & No. 10 Drills
4	1		" " Screw	67B	1		Non-Reversible Live Air Handle Valve for No. 3 & No. 10 Drills
5	1		Vent Tube	68B	1		Non-Reversible Live Air Handle Screw for No. 3 & No. 10 Drills
6	1		Gear Case for No. 3 & No. 6 Drills	69	1		Gear Case Stud $\frac{1}{2} \times 26$
7	1		" " " " No. 10 Drill	70	1		Gear Case Stud Nut
8	1		Center Plate	71	7		Fillister Head Screws for Gear Case
9	1		Upper Spindle Bushing	72B	1		Non-Reversible Live Air Handle Plug for No. 3 & No. 10 Drills
10	1		Lower " " "	73B	1		Non-Reversible Live Air Handle Spring for No. 3 & No. 10 Drills
11	1		Upper Bushing for Counter Shaft for No. 3 & No. 6 Drills	74B	1		Non-Reversible Live Air Handle Valve Lift for No. 3 & No. 10 Drills
12	1		Lower Bushing for Counter Shaft for No. 3 & No. 6 Drills	82	1		Toggle Wrench
13	1		Spindle for No. 3 & No. 6 Drills	83	1		Piston Wrench
14	1		Spindle for No. 10 Drill	84	1		Oil Plug
15	1		Lock for Spindle No. 10 Drill	85	1		Shifter Plate for No. 3 & No. 6 Drills
16	1		Screw for Spindle Lock No. 10 Drill	86	1		Dividing Collar for Spindle No. 3 & No. 6 Drills
17	1		Spindle Lock Spring No. 10 Drill	87	1		Spindle Packing
18	1		Shifter for Compound Gear No. 3 & No. 6 Drills	88	1		Key for Shifter Gears for No. 3 & No. 6 Drills
19	1		Screw for Shifter No. 3 & No. 6 Drills	89	1		Key for Spindle Gears
20	1		Thumb Nut for Shifter for No. 3 & No. 6 Drills	90	1		Key for Counter Shaft Gear to Crank No. 3 & No. 6 Drill
21	1		22 Tooth Spindle Gear & Ball race	91	1		Taper Pin for Wood Chuck No. 6 Drill
22	1		30 Tooth Spindle Gear for No. 3 & No. 6 Drills	92	2		Valve Stud Washer
23	1		22 & 32 Tooth Gear on Counter Shaft for No. 10 Drill	101B	1		Reversible Live Air Handle Screw for No. 6 Drill
24	1		Counter Shaft Stud for No. 10 Drill	102B	1		Reversible Live Air Handle Cap for No. 6 Drill
25	1		Counter Shaft Nut for No. 10 Drill	103B	1		Reversible Live Air Handle Locking Sleeve for No. 6 Drill
26	1		Counter Shaft for No. 3 & No. 6 Drills	104B	1		Reversible Live Air Handle Clamp Nut for No. 6 Drill
27	1		Lower Cap for Counter Shaft for No. 3 & No. 6 Drills	105B	1		Reversible Live Air Handle Operating Plug for No. 6 Drill
28	1		Shifter Gears for Counter Shaft for No. 3 & No. 6 Drills	106B	1		Reversible Live Air Handle Valve for No. 6 Drill
29	1		Counter Shaft Gear to Crank for No. 3 & No. 6 Drills	107B	1		Reversible Live Air Handle Valve Stem for No. 6 Drill
30	1		Upper Support & Ball Race for No. 3 & No. 6 Drills	108B	1		Reversible Live Air Handle Sleeve for No. 6 Drill
31	1		Upper Support & Ball Race for No. 10 Drill	109B	1		Reversible Live Air Handle Stem for No. 6 Drill
32	1		Dividing Collar	110B	1		Reversible Live Air Handle Dowell Pin Screw for No. 6 Drill
33	2		Valve Bushing	111B	1		Reversible Live Air Handle Valve Plate Screw for No. 6 Drill
34	1		Right Valve	112B	1		Reversible Live Air Handle Valve Plate for No. 6 Drill
35	1		Left Valve	113B	1		Reversible Live Air Handle Adjusting Screw for No. 6 Drill
36	4		Piston	114B	1		Reversible Live Air Handle Adjusting Washer for No. 6 Drill
37	4		Connecting Rod Nut	141	1		Live Air Handle Complete Non-Reversible No. 3 & No. 10 Drills
38	4		Connecting Rod & Socket	142	1		Live Air Handle Complete Reversible No. 6 Drill
39	4		Outside Toggle	115	2		Crank Chamber Plate
40	4		Inside Toggle	116	12		Crank Chamber Plate Screw
41	4		Toggle Nut	118	1		Wrench for Chuck
42	2		Valve Lever	118A	1		Valve Lapping Rod or Mandrel
43	1		Counter-weight & Plate for Crank (old style)	143	1		No. 0 Standard Chuck Complete
44	1		Upper Crank Bushing	143A	1		No. 0 Standard Chuck Body
45	1		Crank Shaft & Counter-weight & Plate, one forging	143B	1		No. 0 Standard Chuck Jaws (Pr.)
45A	1		Crank Shaft, old style	143C	1		No. 0 Standard Chuck Screw
46	1		Eccentric & Driver	143D	1		No. 0 Standard Chuck Face Plate
47	2		Eccentric Strap	143E	1		No. 0 Stand. Chuck Face Plate Screws (4)
48	2		Valve Stud Nut	144	1		No. 1 Morse Taper Chuck
49	2		Valve Stud Guide	12			$\frac{3}{16}$ " Steel Balls
50	2		Exhaust Cap for No. 6 Drill Only				
51	2		Exhaust Cap Deflector for No. 3 & No. 10 Drills				
52	2		Exhaust Cap Screw Plate				
53	4		Cylinder Head				
54	1		Stuffing Box				
55	1		Chuck for Wood Bit for No. 6 Drill				
56	1		Screw for Chuck for No. 6 Drill				
57	1		Grip Handle				
58	1		Breast Plate, 3 & 10				
59	1		Hose Nipple				
60	1		Feed Handles for No. 3 & No. 10 Drills				
61	1		Set Screw for Feed Handle for No. 3 & No. 10 Drills				
62	1		Feed Screw for No. 3 & No. 10 Drills				

NOTE—143A to 143E not shown on plate.





### Parts for No. 8 Close-Quarter Drill



## No. 8 Close Quarter Drill

### LIST OF PARTS

In ordering parts, please always SPECIFY the SIZE and SERIAL NUMBER of the DRILL in addition to the numbers and names of the parts given in the list.

When returning machines for repairs, ship same to our works at AURORA, ILLINOIS.

SVM- NO. ROL. PCS.	DESCRIPTION	SVM- NO. ROL. PCS.	DESCRIPTION
201 1	Cylinder	238 1	Ratchet Lever, lower
202 1	Crank Case	239 1	Upper Ratchet Click
203 2	Crank Case Screw Cover	239½ 1	Lower Ratchet Click
204 1	Crank Case Journal Cover	240 2	Ratchet Click Spring
205 2	Piston	241 1	Feed Screw
206 4	Piston Ring	242 1	Upper Ball Race
207 2	Piston Rod and Cross Head (One Forging)	243 1	Upper Ball Race Check Nut
208 2	Cross Head Pin, ½" Diameter	244 1	Lower Ball Race
209 2	Piston Rod Bushing	245 1	Ball Retainer, complete
210 2	Cross Head Guide	247 1	Spindle, No. 3 Morse Taper
211 2	Connecting Rod	248 1	Lower Spindle Bushing
212 2	Connecting Rod Cap	253 1	Square Socket, No. 3 Morse Taper Shank
213 2	Connecting Rod Stud	254 1	Drill Socket, No. 4 Morse Taper with No. 3 Morse Taper Shank
214 2	Connecting Rod Stud Nut	255 1	Ratchet Wrench for Screw Feed
215 2	Connecting Rod Hinge Pin	256 2	Piston Rod Nut
216 1	Main Crank with Counter Weight, 38T Gear, (One Forging)	257 6	Journal Cover Stud
219 4	Crank Journal Roller Case	259 6	Journal Cover Stud Nut ⅝" thick
220 36	Crank Journal Roller	261 1	Upper Ball Race Key
221 4	Roller Retainer	262 1	Ratchet Click Spring Washer (not show on plate)
222 4	Crank Journal Case Key	6 9	Cross Head Guide Stud
223 2	Eccentric Strap	6 10	Cylinder Stud
224 2	Eccentric Strap Cap	13 9	Cross Head Guide Stud Nut
225 2	Eccentric Strap Lock Pin	13 10	Cylinder Stud Nut
226 2	Eccentric Strap Hinge Pin	53 1	Hose Nipple
227 2	Eccentric Strap Corner	64B 1	Live Air Handle Stem
227½ 2	Connecting Rod Stud Cotter	65B 1	Live Air Handle Sleeve
228 2	Valves, right or left	66B 1	Live Air Handle Cap
229 2	Valve Pin	67B 1	Live Air Handle Plug
230 2	Valve Pin Roller	68B 1	Live Air Handle Valve
231 1	Valve Bushing, right	69B 1	Live Air Handle Valve Spring
232 1	Valve Bushing, left	70B 1	Live Air Handle Screw
233 1	Ratchet Lever Crank with 38T Gear, (One Forging)	71B 1	Live Air Handle Strainer
234 2	Ratchet Lever Block (Pin Side)	72B 1	Live Air Handle Valve Lift
235 2	Ratchet Lever Block (Hole Side)	141 1	Live Air Handle (Non-Reversible) Com- plete
236 4	Ratchet Lever Block Pin	167 1	Cylinder Stud Nut Wrench
237 1	Ratchet Lever, upper	88A 1	Lapping Valve Rod or Mandrel (not shown on plate)



Parts for No. 7 Grinding Machine



## No. 7 Grinding Machine

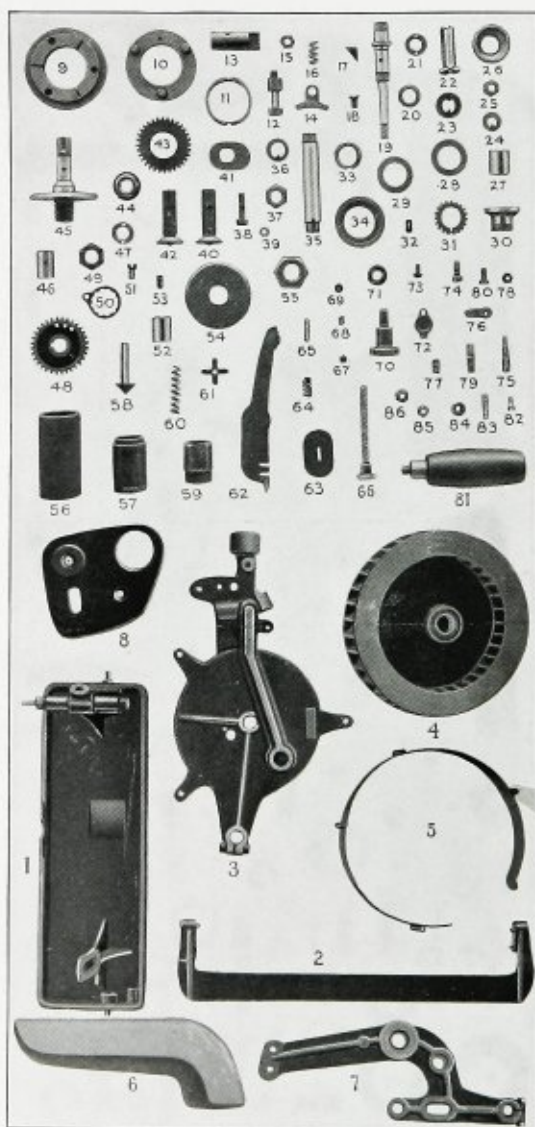
### LIST OF PARTS

In ordering parts, please always SPECIFY the SIZE and SERIAL NUMBER of the MACHINE in addition to the numbers and names of the parts given in the list.

When returning machines for repairs, ship same to our works at AURORA, ILLINOIS.

SYM- BOL	No. Pcs.	DESCRIPTION	SYM- BOL	No. Pcs.	DESCRIPTION
1	1	Cylinder	70B	1	Non-Reversible Live Air Handle Screw
3	1	Valve Bushing	71B	1	" Live Air Handle Strainer
5	1	Oil Tube	72B	1	" Live Air Handle Valve
6	1	Oil Tube Plug			Lift
7	1	Oil Tube Screw	141	1	Non-Reversible Live Air Handle, Com- plete
8	1	Vent Tube	30		1/4" Steel Ball's
13	1	Center Plate	82	1	Toggle Wrench
20	1	Valve, right	83	1	Piston Wrench
21	1	Valve, left	84	2	Crank Chamber Plate
22	4	Piston	85	12	Crank Chamber Plate Screw
23	4	Connecting Rod Socket Nut	88A	1	Valve Lapping Rod or Mandrel
24	4	Connecting Rod and Socket	106	12	Spindle Support Screw
25	2	Outside Toggle	115	1	Spindle Support
26	2	Inside Toggle	116	1	Spindle
27	4	Toggle Nut	117	1	Inner Cone
30	1	Eccentric and Driver	118	1	Outer Cone
32	2	Eccentric Strap	119	1	Outer Cone Washer
33	1	Valve Stud, right	120	1	Outer Cone Check Nut
34	1	Valve Stud, left	121	1	Inner Ball Cup
35	2	Valve Stud Nut	122	1	Inner Ball Cup Washer
36	2	Valve Lever	123	1	Outer Ball Cup
37	2	Valve Stud Washer	124	1	Outer Ball Cup Washer
38	2	Inner Valve Stud Guide	125	1	Packing for Spindle
39	2	Exhaust Cap	126	1	Stuffing Box
40	2	Exhaust Cap Deflector	127	1	Lock Pin
41	2	Screw Plate for Exhaust Cap	128	1	Lock Pin Spring
42	4	Cylinder Head	129	1	Lock Pin Stop
43	1	Upper Cap Bushing	130	1	Star Connection to Spindle
46	1	Upper Cap	131	1	Crank
53	1	Hose Nipple	132	1	Center Plate Bushing
62	1	Feed Hole Cover Check Nut	133	1	Grinding Arbor
64B	1	Non-Reversible Live Air Handle Stem	134	1	Grinding Arbor Washer
65B	1	" Live Air Handle Sleeve	135	1	Grinding Arbor Collar
66B	1	" Live Air Handle Cap	136	1	Grinding Arbor Nut
67B	1	" Live Air Handle Plug	137	1	Oil Plug
68B	1	" Live Air Handle Valve	138	1	Feed Hole Cover
69B	1	" Live Air Handle Valve	139	1	Dividing Collar
		Spring	140	1	Grip Handle

# Thor Pneumatic Turbine Saw



Parts for Pneumatic Turbine Saw





# Pneumatic Turbine Saw

## LIST OF PARTS

In ordering parts, please always SPECIFY the SIZE and SERIAL NUMBER of the MACHINE in addition to the numbers and names of the parts given in the list.

When returning machines for repairs, ship same to our works at AURORA, ILLINOIS.

SVM- BOL.	No. Pcs.	DESCRIPTION	SVM- BOL.	No. Pcs.	DESCRIPTION
1	1	Base	44	2	Intermediate Cone
2	1	Carrier Guide	45	1	Saw Shaft
3	1	Turbine Support	46	1	Saw Shaft Sleeve
4	1	Turbine Wheel	47	1	Saw Shaft Adjusting Cone
5	1	Turbine Guard	48	1	Saw Shaft Gear
6	1	Saw Guard	49	1	Saw Shaft Gear Nut
7	1	Saw Bracket	50	1	Saw Shaft Lock Washer
8	1	Gear Guards	51	1	Saw Shaft Lock Washer Screw
9	1	Governor	52	1	Saw Shaft Ball Retainer
10	1	Governor Adjusting Nut	53	1	Saw Shaft Key
11	1	Governor Stop Ring	54	1	Emery Wheel Washer
12	1	Governor Valve	55	1	Emery Wheel Washer Nut
13	1	Governor Valve Bushing	56	1	Throttle Sleeve
14	1	Governor Valve Arm	57	1	Throttle Seat
15	1	Governor Valve Nut	58	1	Throttle Valve
16	3	Governor Valve Spring	59	1	Throttle Valve Cap
17	3	Governor Centrifugal Block	60	1	Throttle Valve Spring
18	1	Governor Adjusting Nut Clamp Screw	61	1	Throttle Valve Lift
19	1	Turbine Shaft	62	1	Brake Lever
20	2	Turbine and Saw Shaft Inside Cones	63	1	Brake Disk
21	1	Turbine Adjustable Cone	64	1	Brake Lever Spring
22	1	Turbine Adjusting Sleeve	65	1	Brake Lever Pin
23	1	Turbine Adjusting Washer	66	1	Adjusting Screw
24	1	Turbine Shaft Clamp Washer	67	1	Adjusting Tension Screw
25	1	Turbine Shaft Clamp Nut	68	1	Adjusting Tension Spring
26	4	Turbine Wheel and Saw Shaft Cups	69	1	Adjusting Tension Block
27	1	Turbine Ball Retainer Tube	70	1	Clamp Screw (Turbine Support to base)
28	1	Turbine Wheel Ball Washer Loose	71	1	Clamp Screw Washer
29	3	Turbine Wheel and Saw Shaft Washer Stationary	72	1	Regulating Hole Cover
30	1	Turbine Gear Stud	73	1	Regulating Hole Cover Screw
31	1	Turbine Gear	74	2	Clamp Screw (bracket to Turbine Support)
32	1	Turbine Gear Key	75	1	Carrier Guide Lock Pin
33	1	Turbine Gear Check Nut	76	1	Carrier Guide Lock Pin Lever
34	1	Turbine Gear Stud Check Nut	77	1	Carrier Guide Lock Spring
35	1	Swivel Shaft	78	1	Carrier Guide Nut
36	4	Swivel Shaft, Turbine Shaft and Intermediate Stud Washer	79	2	Carrier Guide Stud
37	5	Swivel Shaft, Turbine Shaft and Intermediate Stud Nut	80	4	Oil Screw
38	2	Saw Bracket, Turbine Support Clamp Screw	81	1	Handle
39	2	Saw Bracket, Turbine Support Clamp Nut	82	1	Saw Guide Screw
40	1	Intermediate Stud Adjustable	83	1	Saw Guide Stud
41	1	Intermediate Stud Adjustable Washer	84	1	Saw Guide Collar
42	1	Intermediate Stud Stationary	85	1	Saw Guide Nut
43	2	Intermediate Gear	86	4	Turbine Guide Nut

Six Ball Races, twelve balls in each, or seventy-two balls  $\frac{1}{4}$  in.



## One-Piece Pneumatic Long-Stroke Riveting Hammers

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Parts for Riveting Hammers Nos. 60, 80 and 90

# *Thor* Pneumatic Long Stroke One-Piece Riveting Hammers

Nos. 60, 80 and 90

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## LIST OF PARTS

In ordering parts, please always SPECIFY the SIZE and SERIAL NUMBER of the HAMMER, in addition to the numbers and names of the parts given in the list.

In ordering rivet sets please state size and if cone or button head is desired.

When returning machines for repairs, ship same to our works at AURORA, ILLINOIS.

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SVM- BOL.	No. Pcs.	DESCRIPTION
1	1	One-piece Cylinder and Handle
2	1	Strainer
3	1	Rivet Set
4	1	Rivet Set Clip
5	1	Reducer
6	1	Piston
8	1	Main Valve Bushing
9	1	Main Valve
10	1	Main Valve Cap
11	1	Throttle Valve
12	1	Throttle Valve Bushing
13	1	Throttle Valve Spring
14	1	Throttle Valve Guide
15	1	Trigger
16	1	Trigger Pin
17	1	Expander Clamp
18	1	Expander Sleeve
19	1	Expander Nut
20	1	Hose Nipple
21	1	Auxiliary Valve
22	1	Auxiliary Valve Bushing
23	1	Auxiliary Valve Cap
24	1	Auxiliary Valve Cap Expander
25	1	Auxiliary Valve Cap Wrench
58	1	Main Valve Cap Wrench
59	1	Main Valve Extractor Rod
60	1	Auxiliary Valve Extractor Rod

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## Pneumatic Chipping, Calking and Light Riveting Hammers



Parts for Pneumatic Riveting Hammers Nos. 40 and 50, and Chipping, Calking and Beading Hammers Nos. 1, 2, 3, 4 and 5

# *Thor* Pneumatic Riveting Hammers

Nos. 40 and 50

Chipping Hammers, Nos. 1, 2, 3, 4, and 5

## LIST OF PARTS

In ordering parts, please be sure to SPECIFY the SIZE and SERIAL NUMBER of HAMMER, in addition to the numbers and names of the parts given in the list.

In ordering rivet sets please state size, and if cone or button head are desired.

When returning tools for repairs, ship same to our works at AURORA, ILLINOIS.

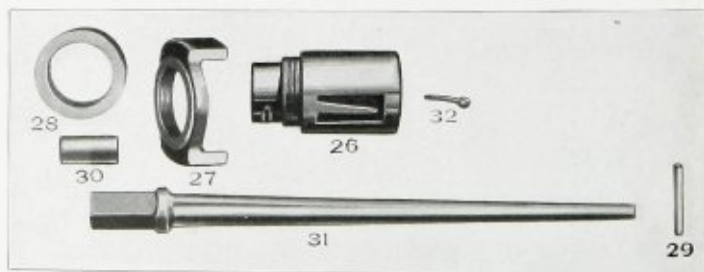
SYM- BOL	NO. PCS.	DESCRIPTION
30	1	Barrel
31	1	Piston
32	1	Chisel Blank, Round shank
33	1	Chisel Blank, Hexagon shank
46	1	Chisel Blank, Differential shank
34	1	Nozzle, hexagon
35	1	Nozzle, round
38	1	Hose Nipple
39	1	Reducer
40	1	Throttle Valve Guide
41	1	Throttle Valve Bushing
42	1	Throttle Valve
43	1	Throttle Valve Spring
44	1	Throttle Valve Stem
45	1	Throttle Valve Nut
46	1	Throttle Valve Lever
47	1	Throttle Valve Lever Pin
48	1	Trigger
49	1	Trigger Pin
50	1	Main Valve, large
51	1	Main Valve, small
52	1	Main Valve Block
53	1	Main Valve Block Dowel Pin
54	2	Main Valve Block Cap
55	1	Handle
56	1	Clamp Screw
57	1	Clamp Screw Nut
61	1	Rivet Set Clip
62	1	Rivet Set
63	1	Throttle Valve Guide Cap
64	1	Throttle Valve Nut Pin
65	1	Fibre Washer for Handle
67	1	Lapping Rod for Valves
68	1	Copper Washer



# *Thor* Pneumatic Holder-On No. 1 and Flue Roller



Parts for No. 1 *Thor* Holder-On  
(Parts for No. 2 Holder-On shown on page 78)



Parts for *Thor* Flue Rollers

# *Thor* Pneumatic Holders-On and Flue Rollers

## LIST OF PARTS

In ordering parts, please always SPECIFY the SIZE and SERIAL NUMBER of the MACHINE, in addition to the numbers and names of the parts given in the list.

When returning machines for repairs, ship same to our works at AURORA, ILLINOIS.

### *Thor* No. 1 Holder-On

SYM- BOL	No. Pcs.	DESCRIPTION
1	1	Cylinder
2	1	Plunger
3	1	Plunger Stop Nut
4	1	Packing Nut
5	1	Rivet Set Retaining Ball $\frac{3}{8}$ " diameter
6	1	Rivet Set Retaining Spring
7	1	Rivet Set Retaining Plug
8	1	Packing (leather)
9	1	Handle (Wood)
10	1	Handle Support
11	1	Handle Strap
12	1	Handle Strap Clamp
13	2	Handle Strap Clamp Screw
14	2	Handle Strap Clamp Nut
15	1	Stop Valve
16	1	Stop Valve Nipple
17	1	Rivet Set Blank
53	1	Hose Nipple
19	1	No. 1 Holder-on Complete

### *Thor* No. 2 Holder-On

SYM- BOL	No. Pcs.	DESCRIPTION
1	1	Cylinder
2	1	Plunger
3	1	Plunger Stop Nut
4	1	Packing (leather)
5	1	Rivet Set Retaining Ball $\frac{3}{8}$ " Diameter
6	1	Rivet Set Retaining Spring
7	1	Rivet Set Retaining Plug
8	1	Packing Nut
17	1	Rivet Set Blank
48	1	Pipe Plug
53	1	Hose Nipple
64B	1	Live Air Handle Stem
65B	1	Live Air Handle Sleeve
66B	1	Live Air Handle Cap
67B	1	" " " Plug
68B	1	" " " Valve
69B	1	" " " Valve Spring
70B	1	" " " Screw
71B	1	" " " Strainer
72B	1	" " " Valve Lift
20	1	No. 2 Holder-on with Live Air Handle, complete
141	1	Non-Reversible Live Air Handle, complete

## LIST OF PARTS

### *Thor* Pneumatic Flue Rollers or Expanders

SYM- BOL	No. Pcs.	DESCRIPTION
26	1	Body
27	1	Stop Collar
28	1	Stop Collar Ring
29	1	Taper Pin
30	3	Roller
31	1	Expander Mandrel
32	1	Cutter for Expander Mandrel
33	1	Flue Roller Complete

# *Thor* Pneumatic Holder-On No. 2



Parts for *Thor* No. 2 Holder-On  
(For List of Parts see Page 77)

# Weights and Dimensions

*The* AIR TOOLS PACKED FOR EXPORT

No.	NAME	SIZE OF PACKAGE FOR ONE	GROSS WEIGHT	NET WEIGHT
<b>Drills,</b>				
0	Non-reversible .....	20x16x12 in.	94 lbs.	80 lbs.
00	Reversible .....	20x16x12 "	97 "	83 "
24	Non-reversible .....	16x14x11 "	80 "	69 "
25	Reversible .....	16x14x11 "	82 "	71 "
1	Non-reversible .....	16x14x11 "	66 "	55 "
21	Reversible .....	16x14x11 "	68 "	57 "
2	Non-reversible .....	14½x11½x10 "	57 "	48 "
22	Reversible .....	" " " "	59 "	50 "
3	Non-reversible .....	16½x8x8 "	21 "	16 "
6	Wood Boring, Reversible .....	" " " "	19 "	14 "
10	Non-reversible .....	" " " "	19 "	14 "
4	" .....	13½x10½x8 "	30 "	24 "
5	Wood Boring, Reversible .....	" " " "	30 "	24 "
14	" .....	14½x11½x10 "	46 "	37 "
7	Grinding Machine .....	13½x10½x8 "	32 "	26 "
8	Close Quarter, Non-reversible .....	" " " "	36 "	30 "
<b>Hammers,</b>				
60	Long Stroke, Riveting .....	22x8½x5½ "	36 "	31 "
80	" " " .....	" " " "	37 "	32 "
90	" " " .....	" " " "	38 "	33 "
40	Light Riveting .....	" " " "	23 "	18 "
50	" " " .....	" " " "	24 "	19 "
1	Calking and Chipping .....	14x7½x5 "	16 "	13 "
2	" " " .....	" " " "	17 "	14 "
3	" " " .....	18x7½x5 "	21 "	17 "
4	" " " .....	22x8½x5½ "	23 "	18 "
5	" " " .....	" " " "	24 "	19 "
	Holder-On .....	10x12x8 "	26 "	20 "
<b>Flue Rollers or Expanders,</b>				
1½	in. ....	14x7½x5 "	6½ "	3½ "
1½	" .....	" " " "	6½ "	3½ "
2	" .....	" " " "	7 "	4 "
2½	" .....	" " " "	7½ "	4½ "
2½	" .....	" " " "	7½ "	4½ "
2½	" .....	" " " "	9 "	6 "
2½	" .....	" " " "	10 "	7 "
3	" .....	16x7½x5 "	11 "	8 "
3½	" .....	" " " "	11½ "	9 "
4	" .....	" " " "	12 "	10 "
<b>Hose,</b>				
1	in. Plain (100 ft.) .....	30x30x10 "	80 "	42 "
1	" Wire Wound (100 ft.) .....	" " " "	100 "	62 "
1	" Plain (100 ft.) .....	" " " "	70 "	35 "
1	" Wire Wound (100 ft.) .....	" " " "	90 "	52 "
	Pneumatic Rivet Forge .....	42x21x21 "	95 "	60 "
	Turbine Saw .....	22x9x12 "	35 "	20 "

## IMPORTANT

### Special Notice

In ordering parts you are particularly requested to mention the size and serial number of machine (which will be found plainly stamped on each tool we manufacture) in addition to the symbol number and description of the part required. By so doing you will avoid delay and inconvenience to yourselves, and enable us to fill your orders satisfactorily and promptly.

In ordering Rivet Sets for Riveting Hammers, please specify sizes and whether Cone, Steeple or Button Sets are desired.

For chipping and calking Hammers we furnish Chisels with Round, Hexagon or Differential shanks, the latter being intended for use with Hammers equipped with Hexagon Nozzles.

INDEPENDENT PNEUMATIC TOOL CO.









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